

Summary

About this Release

A comprehensive discussion and description of the concepts and definitions underpinning Australian labour statistics and the data sources and methods used in the collection and compilation of these statistics. It explains what the statistics measure, how the various measures relate to each other and how they are produced. It also discusses the factors influencing their accuracy and reliability. To ensure that the concepts used and the references are relevant and current, chapters of this publication will continually be updated.

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Preface

Preface

This publication provides a comprehensive description of the concepts, sources and methods used in compiling Australian labour statistics. It also discusses the various statistical measures that are available, how they relate to each other, and the factors influencing their accuracy and reliability. The aim is to help users improve their understanding of the extensive range of labour statistics that are produced, and thereby to support better analyses and interpretations of the resulting data.

From time to time, particular concepts, sources and methods used in compiling labour statistics are changed or modified in the light of reviews or other developments. The practice of advising users of these changes in the appropriate labour statistics publications and through special information papers will continue. It is also intended that the chapters of this publication will be updated periodically to ensure that the concepts used and the references are relevant and current.

The ABS invites comments on the usefulness of this publication as a guide to Australian labour statistics. Such feedback will help in planning the content of updates to this publication and the descriptive material included in regular ABS labour statistics publications. Feedback should be directed to:

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Chapter 1. Overview of Labour Statistics

CHAPTER 1. OVERVIEW OF LABOUR STATISTICS

PURPOSE

1.1 This publication provides a comprehensive account of the concepts and definitions underpinning Australian labour statistics, and the data sources and methods used in the collection and compilation of these statistics. Although the publication covers the broad range of Australian labour statistics, the focus is on the collections conducted by the Australian Bureau of Statistics (ABS). It is designed to assist users in their understanding of Australian labour statistics and thereby allow better analyses and interpretations of the resulting data.

WHAT ARE LABOUR STATISTICS?

1.2 Labour statistics measure aspects of the labour market, and are important economic and social indicators. Labour statistics provide insight into the economy and the effects of labour market policy settings, through measures of labour market demand (employment, job vacancies, labour costs) and labour market supply (unemployment, labour force participation). Labour statistics are also very much about people - their participation in the labour force, their success in finding employment, their earnings and other benefits, their type of work, and their working hours. Education and training statistics could also be included as a part of labour market statistics. Education and training is an aspect of people's preparation for the labour market, and their maintenance of skills once in the labour market. However, the wide variety of issues in this field usually causes it to be treated as a separate area of statistics; accordingly, education and training statistics have been excluded from this publication.

USES AND USERS OF LABOUR STATISTICS

1.3 Labour statistics are used by a broad audience and serve a number of purposes. Users of labour statistics include: governments and their agencies and advisers, economists, financial analysts, journalists, business people, trade unions, employer associations, students, teachers, industrial tribunals, academic researchers and lobby groups.

1.4 Labour statistics are used extensively in both economic and social analyses. They are used in the analysis, evaluation, and monitoring of: the economy; the labour market; a wide range of government policies (relating in particular to employment, income support, industrial relations); and population groups of particular concern (women, younger persons, older persons, Indigenous people, etc).

AUSTRALIAN LABOUR STATISTICS

1.5 Australian labour statistics comprise a large number of measures relating to the Australian labour market. Diagram 1.1 illustrates the range of ABS labour statistics, their sources, and broadly how they relate to the labour market.

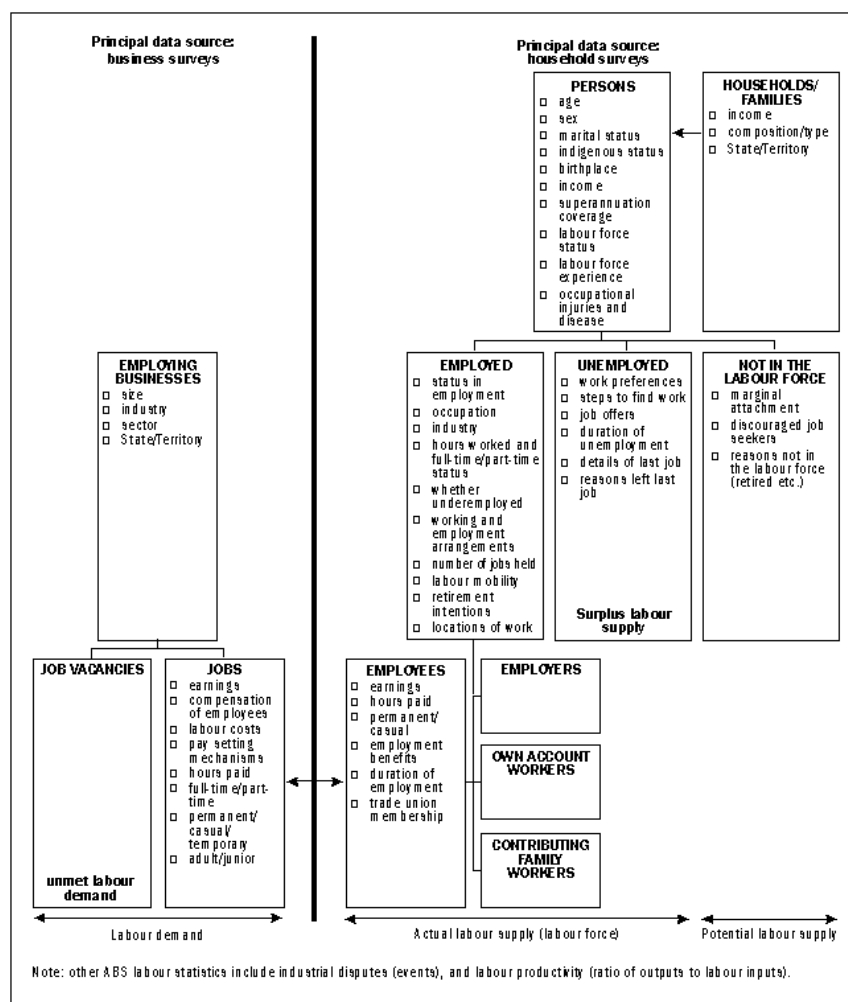
1.6 Population censuses and household surveys constitute the primary sources for labour statistics about people. In addition to information about current and previous labour force participation, information collected also includes demographic data, such as age, sex, family status and country of birth. Labour statistics collected about people provide insight into the supply of labour to the Australian labour market.

1.7 Business surveys are the primary source of data on labour costs, earnings, jobs and job vacancies, all of which provide insight into the demand for labour in the Australian labour market. Other sources of labour statistics include administrative data sets, which are the primary sources for information on occupational injury.

1.8 Australian labour statistics have a number of other features. The main ones are described below:

- Labour statistics incorporate a range of statistical or counting units, including households and families, persons, jobs, businesses, and events (such as incidence of industrial disputes and occupational injuries).
- Labour statistics contain information about a wide range of subjects - the economically active population, including statistics of employment, unemployment and underemployment; average earnings and hours of work; wage structures and distributions; labour costs; occupational injuries and disease; industrial disputes; and labour productivity.
- Labour statistics incorporate different types of estimates, such as: estimates of levels at points in time (e.g. number of unemployed in a given month); estimates of net changes in levels between points in time (e.g. month-to-month movements in unemployment); and estimates of gross changes at an individual level (e.g. flows among categories of labour force status). A number of estimates are also produced on an original, seasonally adjusted and/or trend basis.
- Australian labour statistics adhere wherever possible to international conventions, recommendations and guidelines developed and maintained by the International Labour Organisation (ILO) and the United Nations Statistical Office.
- Labour statistics are compiled and disseminated principally by the ABS, but also by other public sector agencies and some private sector organisations.

1.1 TYPES AND SOURCES OF ABS LABOUR STATISTICS



DEVELOPMENT OF LABOUR STATISTICS

DEVELOPMENT OF INTERNATIONAL STANDARDS

1.9 The ILO was founded in 1919, at the time of the Peace Conference that followed the end of the First World War. The ILO Constitution was written by the Labour Commission, which was set up by the Peace Conference. The Commission was composed of representatives from nine countries, and was chaired by the head of the American Federation of Labour. It resulted in a tripartite organisation, bringing together representatives of governments, employers and workers in its executive bodies. The ILO is unique among world organisations in that employers' and workers' representatives have equal voice with those of governments in shaping its policies and programs. The ILO Constitution became Part XIII of the Treaty of Versailles.

1.10 The International Labour Conference meets annually. It provides an international forum for the discussion of world labour and social issues, and sets minimum international labour standards and broad policies of the ILO. Each member country has the right to send four delegates to the Conference: two from the government and one each representing workers and employers, each of whom may speak and vote independently.

1.11 The most important instruments for the work of the ILO are the International Labour Conventions and Recommendations. These are adopted by the International Labour Conference and set international labour standards. Through ratification by member States, Conventions create binding obligations to implement their provisions. Recommendations provide guidance on policy, legislation and practice. In the field of labour statistics, the Labour Statistics Convention (No. 160) was adopted by the International Labour Conference in 1985, replacing an earlier and more restricted convention regarding wages and hours of work (No. 63, 1938).

1.12 The 1985 Convention lays down principles, obligations and recommendations for the collection and publication of labour and related statistics in the fields of employment, unemployment, earnings, hours of work, wage structure and distribution, labour costs, consumer

prices, household income and expenditure, occupational injuries and disease and industrial disputes. Australia ratified the 1985 Convention in 1987. Australia had not been able to ratify the earlier convention of 1938 due to its then underdeveloped statistical system.

1.13 Detailed technical guidelines on labour statistics are expressed in the form of Resolutions formally adopted by one of the ILO technical committees - the International Conference of Labour Statisticians (ICLS). The first ICLS was convened in 1923, while the latest, the eighteenth, was in 2007. ICLS Resolutions cover such matters as concepts, definitions, methodologies for measurement and data collection, classification, analysis and dissemination.

1.14 ICLS Resolutions are currently in force for: collective agreements (1926); social security statistics (1957); hours of work (1962); labour costs (1966); underemployment and underutilisation of manpower (1966); household income and expenditure (1973); an integrated system of wages statistics (1973); occupational injuries (1982); economically active population, employment, unemployment and underemployment (1982); consumer price indices (1987); the International Standard Classification of Occupations (1987); strikes and lockouts, classification of status in employment, and employment in the informal sector (1993); and employment-related income, occupational injuries, and underemployment and inadequate employment situations (1998). The ICLS Resolutions can be found on the ILO website at the following address: <http://www.ilo.org/public/english/bureau/stat/res/index.htm>.

1.15 Prior to the 1960s, Australia's ability to conform with the international standards was limited by the level of resources and the nature of the methodologies available to official statisticians. The introduction of direct surveys of households and employers in the 1960s provided the Commonwealth Statistician with direct control over the type and range of data collected. Over the subsequent decades Australia has made a valuable contribution to the development and revision of international standards in the course of expanding its own labour statistics system in accordance with those standards. Australia currently meets the 1985 Convention almost in its entirety.

DEVELOPMENT OF AUSTRALIAN LABOUR STATISTICS

1.16 Some statistics relating to wage levels, hours of work, labour organisations and unemployment were available in the separate self-governing colonies of Australia in the nineteenth century, when separate statistical bureaux were set up in the various States. However, it was only after Federation in 1901, the subsequent enactment of the Census and Statistics Act in 1905, and the establishment of the Commonwealth Bureau of Census and Statistics in 1906¹, that the ground was prepared for the compilation of uniform labour statistics for the whole country. In the first national census of 1911, information was collected on occupation, wage rates, unemployment and duration of unemployment. In the same year a Labour and Industrial Branch was set up within the Commonwealth Bureau of Census and Statistics with the responsibility for publishing a report 'Trade Unionism, Unemployment, Wages, Prices and the Cost of Housing 1891-1912 (footnote 1).

1.17 Responsibility shortly thereafter extended into the fields of industrial disputes, trade unions and industrial accidents. This established the pattern of labour statistics that was to be followed more or less unchanged until the early 1960s. The principal sources of information available during this era were:

- population censuses - undertaken in 1911, 1921, 1933, 1947 and 1954;
- trade unions - details of wage rates, numbers of unemployed union members and industrial disputes; and
- administrative sources - details of awards, determinations, industrial agreements and industrial accidents provided in State and Federal statutory reports were all used in the production of labour statistics.

1.18 The first regular statistical measure of 'employment' in Australia dates from the introduction of Payroll Tax in 1941. This provided an administrative source of information suitable for deriving civilian employment by industry for each State and Australia, and average weekly earnings for employed wage and salary earners.

1.19 The Commonwealth Employment Service was established in 1947 to assist people seeking employment to obtain jobs best suited to their qualifications, skills, training and experience, and to assist employers seeking additional labour to obtain that best suited to their needs. As a by-product, the Commonwealth Employment Service produced measures of unemployed persons awaiting placement, as well as measures of vacancies notified by employers. The unemployment measure of the Commonwealth Employment Service remained the official measure of unemployment in Australia until the 1970s. Since one of the principal requirements for qualifying for unemployment benefits was registration with the Commonwealth Employment Service, a high degree of coverage resulted.

1.20 The integration of the separate State Statistics Bureaux with the Commonwealth Bureau in the late 1950s (though the Tasmanian integration agreement had been reached in 1924) allowed the resultant statistical organisation to place more emphasis on direct collections (more in line with international practices) and less emphasis on administrative by-product data.

1.21 The Commonwealth Bureau of Census and Statistics introduced household surveys in 1960 primarily to provide more detailed and comprehensive measures of the labour force than could be provided from administrative data sources (such as the Commonwealth Employment Service series). Initially the program of household surveys comprised only the Labour Force Survey, which was conducted in capital cities and on a quarterly basis. In 1964 the Labour Force Survey was extended to the whole of Australia, and then in 1978 it was expanded to a monthly frequency, when the Commonwealth Government decreed that it would provide the official measures for employment and unemployment. A supplementary topic was included with the Labour Force Survey for the first time in November 1961, and this concept has been gradually extended so that now the majority of months in each year include supplementary questions on one or more topics. In 1994 the Labour Force Survey also became the vehicle for a continuous survey of income and housing costs.

1.22 In the 1980s the program of household surveys was further expanded to include a program of Special Social Surveys. These surveys collect in-depth information about a population group or subject area of interest, as well as a range of labour force data for the population in scope. In recent years two Special Social Surveys have focussed on labour topics - the longitudinal Survey of Employment and Unemployment Patterns (1994-1997), and the Survey of Employment Arrangements and Superannuation (2000). In 1993 the quarterly Population Survey Monitor was introduced. This survey vehicle was designed to collect small amounts of data about simple topics at a reasonable cost, and to output results in a timely manner. It was discontinued in 2000.

1.23 In addition to household surveys, the Commonwealth Bureau of Census and Statistics also introduced labour employer surveys in the 1960s. The program of employer surveys initially comprised an annual survey of employing businesses which was designed to supplement data being derived from payroll tax records to produce a quarterly average weekly earnings series. Conducted each October, the survey collected detailed dissections of earnings and hours paid for, for various categories of jobs (adult and junior, full-time and part-time, managerial and non-managerial) for both males and females. The quarterly series of average weekly earnings provided limited information about the composition of earnings, and no information on occupational earnings or the distribution of earnings. To supplement the quarterly series, a more extensive survey producing this information was introduced in 1974. Currently conducted biennially, this survey is known as the Survey of Employee Earnings and Hours. A survey of job vacancies was also launched in 1974.

1.24 By 1981 it was recognised that the payroll tax series used to produce the average weekly earnings and civilian employees series had deteriorated significantly in terms of coverage due to increasing payroll tax exemptions. Both series were discontinued and replaced with new series based on two new quarterly surveys of employers - the Survey of Average Weekly Earnings (introduced in 1981 and subsequently modified in 1983), and the Survey of Employment and Earnings (introduced in 1983). The mid 1980s also saw the introduction of an irregular survey of labour costs in 1985-86, which in the early 1990s was supplemented by a series of surveys on training expenditure (1989, 1990, 1993, and 1996). In 1997 the quarterly Wage Cost Index was introduced.

THE CURRENT ABS LABOUR STATISTICS PROGRAM

1.25 The expansion of the labour statistics program over a large number of years has resulted in the ABS currently producing a wide range of labour statistics. Population censuses and household surveys constitute the primary sources of ABS labour statistics on persons and households. Business surveys are the primary sources of data on labour costs, earnings, employee jobs, job vacancies and industrial disputes. Administrative data are the primary source of data on occupational injury and disease. Other data, such as labour productivity data, are derived using a number of ABS sources.

1.26 There are a number of ABS collections that produce labour statistics but which do not fall within the ABS labour statistics program, as their primary purpose is not to produce labour market data. These collections nevertheless represent important sources of labour statistics and include various household, industry, and activity specific collections.

Household surveys

1.27 Household surveys falling within the labour statistics program include:

- the monthly Labour Force Survey and its labour related supplementary topics:
 - Employee Earnings, Benefits and Trade Union Membership;
 - Forms of Employment;
 - Job Search Experience;
 - Labour Force Status and Other Characteristics of Migrants;
 - Labour Mobility;
 - Locations of Work;
 - Persons Not In the Labour Force;
 - Underemployed Workers;
 - Work Related Injuries;
 - Working Time Arrangements; and
 - Multi Purpose Household Survey (labour related topics include Retirement and Retirement Intentions and Barriers and Incentives to the Labour Force)
- Special Social Surveys collecting information on aspects of the labour market - the Survey of Employment Arrangements, Retirement and Superannuation.

1.28 The ABS household surveys program also includes a General Social Survey, an Indigenous Social Survey, and most other social surveys contain a labour force status module. While some components do not fall specifically within the labour statistics program, they yield a variety of labour statistics about the Australian population.

Business surveys

1.29 Business surveys falling within the labour statistics program collect information from employing businesses on a range of topics. The program includes:

- Survey of Employment and Earnings (public sector only from 2002);
- Average Weekly Earnings Survey;
- Employee Earnings and Hours Survey;
- Survey of Job Vacancies;
- Survey of Major Labour Costs;
- Industrial Disputes Collection; and
- Wage Price Index.

Dissemination of ABS labour statistics

1.30 The release practices for ABS labour statistics fall within the general release practices for all ABS data. Section 12(1) of the Census and Statistics Act 1905 requires the Statistician to compile and analyse information collected under the Act and to publish and disseminate the results of any compilations and analyses, or abstracts of those results. Chapter 17 contains further detail on: ABS objectives and practices (e.g. confidentiality provisions) in the dissemination of statistics; and media used in the release of ABS statistics. The Appendix contains further detail on ICLS guidelines and ABS practice on the dissemination of labour statistics.

STRUCTURE OF THE PUBLICATION

1.31 The remaining chapters in this publication are organised into two parts. The first part (concepts and sources) explains the concepts that underlie labour statistics, outlines the major classifications used in labour statistics, and overviews the sources for a number of key labour statistics. The second part (methods) focuses on the various labour statistics surveys, describing the data collected in each, methodologies used, and changes to collections over time.

1.32 The concepts and sources part of the publication (chapters 2 to 16) is organised into the following broad topics: the currently economically active population (Chapter 2) ; employment (Chapter 3); employment measures and classifications (Chapter 4); underemployment (Chapter 5); unemployment (Chapter 6); not in the labour force (Chapter 7); measures of underutilised labour (Chapter 8); usually economically active population (Chapter 9); other measures of the economically active population (Chapter 10) ; job vacancies (Chapter 11); employee remuneration (Chapter 12); industrial relations (Chapter 13); labour productivity (Chapter 14); occupational injuries and diseases (Chapter 15); and other classifications used in labour statistics (Chapter 16). Each chapter explains in detail: the concepts underlying the statistical measures discussed including international recommendations and guidelines where they apply; the definitions used in Australian measures and how they compare with the international recommendations and guidelines; and any differences across the

various data sources.

1.33 The methods part of the publication (chapters 17 to 33) describes the output and methodology of key ABS labour statistics surveys. Chapter 17 provides a brief overview of key aspects of ABS survey methodology, and explains concepts and terms used in subsequent chapters. The remaining chapters are organised into two sections:

- ABS household surveys, including the Census of Population and Housing, the Labour Force Survey and its labour-related supplementary topics, and a number of Special Social Surveys, presented in chapters 18 to 24;
- labour-related ABS business surveys, presented in chapters 25 to 33.

Each section begins with a chapter outlining aspects of survey methodology which are common to the type of survey being discussed (i.e. household or business survey).

1.34 An Appendix supplements the information presented in the main part of this publication, by contrasting ICLS guidelines on the dissemination of labour statistics, with ABS practice and policy for the dissemination of labour statistics.

PREVIOUS AND RELATED PUBLICATIONS

1.35 This is the first comprehensive and detailed publication produced by the ABS on concepts, sources and methods in the field of labour statistics. As indicated above, a considerably less detailed publication examining concepts and sources of labour statistics was released by the ABS in 1986 under the title A Guide to Labour Statistics (cat. no. 6102.0).

1.36 Summary information on the collection methodology, survey definitions and conceptual frameworks are contained in the explanatory notes of every ABS statistical publication.

1.37 The ABS also periodically releases information papers, occasional papers etc. on various labour statistics and their associated sources, concepts, definitions and collection methodologies.

FURTHER INFORMATION

1.38 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206, or email labour.statistics@abs.gov.au

FOOTNOTES

1. In 1974 the Commonwealth Bureau of Census and Statistics was abolished and replaced by the Australian Bureau of Statistics. [<back](#)

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Chapter 2. Currently Economically Active Population

CHAPTER 2. CURRENTLY ECONOMICALLY ACTIVE POPULATION

INTRODUCTION

2.1 Labour statistics relate to the economic activity of the population. This chapter discusses the concepts underlying measures of the economically active population, including economic activity, the population, and the labour force framework. It also contrasts the various measures of the economically active population collected in ABS household surveys.

CONCEPTS AND INTERNATIONAL GUIDELINES

2.2 The international standards and guidelines for measures of the economically active population are set out in the International Labour Organisation Convention 160 and the International Conference of Labour Statisticians Resolution 170 of 1982. The economically active population provides the supply of labour for economic production. The economically active population is defined as all people who, during a specified time, contribute to or are available to contribute to the production of economic goods and services as defined by the United Nations System of National Accounts (SNA). The International Labour Organisation (ILO), in its manual 'Surveys of Economically Active Population, Employment, Unemployment and Underemployment', discusses the rationale for the concepts underlying the standard measures. The manual also provides guidelines on methods for their collection, by means of population censuses and surveys. The guidelines suggest that survey measures of the economically active population consider three aspects:

- the scope of the population to be covered
- the scope of economic activity
- a measurement framework for classifying the in-scope population according to their activities.

SCOPE OF THE POPULATION

2.3 The economically active population should, in theory, include the entire population of the country who are engaged in economic activity as defined. In practice, restrictions are sometimes imposed both for legal and practical reasons (such as relevance of the measure) in a household survey context. The international standards recognise that business surveys and administrative records may be used to supplement household survey measures. Commonly, surveys aimed at measuring the economically active population are restricted to the civilian population (other than those living in institutions) above a set minimum age.

2.4 The international standards and guidelines recognise the need to exclude people below a certain age from the measures, without specifying a particular age limit. The responsibility for setting such limits lies with individual countries. Examples of factors influencing the

age limit are:

- legislation governing the minimum school leaving age
- labour laws setting the minimum age for entering paid employment
- the extent of the contribution to economic activity by young people
- the cost and feasibility of accurately measuring this contribution in household surveys.

2.5 A maximum age limit is not a feature of the international guidelines but, for practical reasons, some countries do use a maximum age limit. The international guidelines also recognise the possible need, in the survey context, to exclude other population groups such as people living permanently or semi-permanently in institutions.

2.6 The international standards require that members of the armed forces be classified as employed, and recommend that, for analytical purposes, the economically active population be divided into two parts: the armed forces and the economically active civilian population. The guidelines recognise that there may be difficulties in obtaining measures of the armed forces from labour force surveys, and that separate administrative counts may be necessary.

ECONOMIC ACTIVITY AND THE SNA PRODUCTION BOUNDARY

2.7 The concept of economic activity underlying measures of the economically active population is compatible with the concept of economic activity used in the SNA. The concept of economic activity in the SNA is defined in terms of the production of goods and services falling within the SNA production boundary. In the SNA, production is viewed as a physical process in which labour and assets are used to transform inputs of goods and services into outputs of other goods and services. Economic activity covers all market production and certain types of non-market production including the production and processing of primary produce by households for their own consumption, the construction of dwellings and structures for own use, and the production of fixed assets (footnote 1) for own use.

2.8 While the SNA definition of the production of goods and services covers a wide range of activities, many other activities still remain outside its scope. For example, the production of domestic and personal services for consumption within the same household (such as preparing meals and caring for children) are excluded. The production of domestic and personal services is excluded because of the difficulty in producing economically meaningful estimates of their values, and because of the adverse effects their inclusion would have on the usefulness of the accounts for policy purposes and analysis of inflation and unemployment. The extension of the production boundary to include own-account household services would result in virtually the whole adult population being defined as 'economically active', unemployment would cease to exist, and employment statistics would become meaningless (SNA93, 6.22).

2.9 The SNA definition of production also excludes voluntary unpaid work associated with community charity and volunteer work. Services of this type include a wide range of welfare, sport, education, training, rescue and fire services. In general, the purpose of voluntary work is to provide a service to others which would not otherwise be available. People engaged in voluntary work do, however, contribute to national output and welfare. In recognition of this, the international guidelines contain a provision to identify people engaged in voluntary work, as well as people engaged in unpaid domestic activities falling outside the boundary of economic activity, and to classify them separately among the population not economically active (ICLS 1982). In addition, SNA93 recommends that the boundary of production could be extended by incorporating unpaid household work and volunteer and community work in so-called 'satellite accounts' (SNA93 21.120). These are accounting statements which are separate from, but consistent with, the existing national accounts.

CURRENT AND USUAL ECONOMIC ACTIVITY

2.10 The international standards identify two measures of the economically active population: the currently active population measured in relation to a short reference period such as one week or one day; and the usually active population measured in relation to a long reference period such as one year.

2.11 The currently active measure provides a snapshot of the economically active population at a particular point in time. This current stock measure of the labour supply, collected at sufficiently frequent intervals, can contribute to the formation of national accounts data (particularly relating to compensation of employees), and can also be used to monitor labour market trends in general (and employment and unemployment levels in particular).

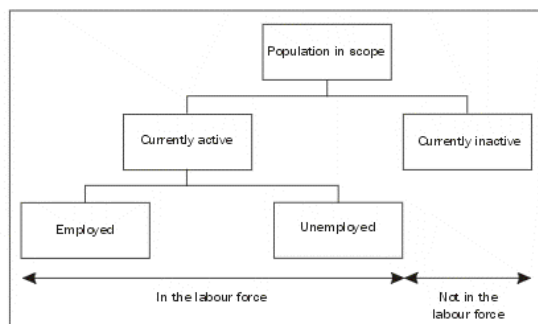
2.12 The usually active framework was introduced as an international standard in 1982. It provides a framework for the collection of data reflecting the dominant pattern of activities over a lengthy period. The use of a long reference period can provide more representative estimates of the economically active population where economic activity has significant seasonal variation. Further, as it permits collection of information on not only the main activity of individuals over the year but also their other activities (e.g. spells of employment and unemployment), it is useful for analysis of employment and income.

THE LABOUR FORCE FRAMEWORK

2.13 The currently economically active population is also referred to as the labour force. The labour force is conceptually equivalent to the labour supply available for the production of economic goods and services in a given short reference period. The labour force is the most widely used measure of the economically active population. The term 'labour force' as defined in the international standards is associated with a particular approach to the measurement of employment and unemployment. Essentially this approach is the categorisation of people according to their activities during a short reference period using a specific set of priority rules.

2.14 The labour force framework classifies the in-scope population into three mutually exclusive categories, at a given point in time: employed; unemployed; and not in the labour force. The employed and unemployed categories together make up the labour force which gives a measure of the number of people contributing to, or actively looking and immediately available for, the supply of labour at that time. The third category (not in the labour force) represents the currently inactive population. Diagram 2.1 shows these concepts.

2.1 THE LABOUR FORCE FRAMEWORK



2.15 The labour force framework includes rules for sorting the population into the three basic categories. These rules are applied in population surveys through three steps. The first involves identifying the in-scope population. The second involves identifying, within the in-scope population, those people who are engaged in economic activity as defined - either at work or temporarily absent from work. The third step involves identifying, among the remaining people, those people who were actively seeking and available for work, or who were not seeking work because they were waiting to commence a job that they had already found. The labour force framework classifies people identified in the second step as employed, and those identified in the third step as unemployed. The residual population is classified as 'not in the labour force'.

2.16 The labour force framework rules have the following features:

- the activity principle, which is used to classify the population into one of the three basic categories in the labour force framework
- a set of priority rules, which ensure that each person is classified into only one of the three basic categories
- a short reference period to reflect the labour supply situation at a specified point in time.

2.17 The rationale for the treatment of people temporarily absent from work, and of people waiting to start a job they have already found, stems directly from the labour supply perspective, and is discussed further in Chapter 3 (paragraphs 3.5, 3.6, 3.11 and 3.12) and Chapter 6 (paragraphs 6.7, 6.13 and 6.14).

ACTIVITY PRINCIPLE

2.18 The activity principle of the labour force framework requires that a person's labour force status is determined by what they were actually doing in the reference period, in terms of their engagement in, or capacity to engage in, economic activity. Commonly, surveys seek responses to a series of activity-based questions, which reflect both the reference period and the priority rules. The purpose of the activity principle is to provide an objective measure of the labour force.

Priority rules

2.19 Under the priority rules, precedence is given to employment over unemployment and to unemployment over economic inactivity. To ensure that all economic activity is covered, a practical minimum quantity of work is required (one hour or more in the short reference period); this also ensures that only those completely without work can be classified as unemployed. Of those completely without work, the unemployed must have taken active steps to obtain work and be currently available for work. The employed, the unemployed and the inactive are thus mutually exclusive and exhaustive components of the population.

2.20 Together, the priority rules and the activity principle provide unambiguous labour force measures, regardless of other activities that may be undertaken at the same time. For example, a person at work may also be actively seeking other employment; they are currently contributing to economic production and are therefore classed as employed, despite their job search. Similarly, a person working part-time while undertaking full-time study will be classed as employed. Likewise, a full-time student who is not working and is actively seeking and available for work will be classed as unemployed.

Reference period

2.21 The concepts of employed and unemployed need to relate to short time periods to allow meaningful measures of current levels and changes in employment and unemployment. Two short reference periods are presented in the international standards as suitable for the purpose: one week; and one day. Since employment and unemployment are stock concepts, the statistical measures would ideally be of a precise point in time. However, the closest practical time-span that could represent a single point in time is one day or one week. The choice between a one week and a one day reference period is not a recent problem but one that has been the subject of much consideration and debate by labour statisticians for over 50 years.

2.22 As a result of the application of the priority rule (under which economic activity, however little, has precedence over other, non-economic, activities), the labour force measured using a one week reference period must always be equal to or greater than the labour force measured using a single day of that reference week. The difference between the two measures depends on the relative number of people who change their activity status during a week. The differences are likely to be fairly small, because, in the course of a week, the movement of people from unemployed to employed and from employed to unemployed is more likely than people changing their status from inside the labour force to outside the labour force.

2.23 The solution adopted in the international standards aims to satisfy different conditions which exist among countries. In countries such as Australia, where regular full-time employment is dominant, similar average results will arise from the use of a reference period of a week or a single day; however, the one week reference period is likely to provide results of lower variance and is therefore preferred. Conversely, where people employed in casual, part-time, or temporary jobs constitute a significant proportion of total employment, the use of a one day reference period will provide a more precise measure of employment and unemployment than using a reference period of a week.

EXTENSIONS TO THE LABOUR FORCE FRAMEWORK

2.24 The basic framework as outlined above can be extended to identify various sub-groups of employed (e.g. underemployed, full-time and part-time workers, and self-employed people), unemployed (e.g. long-term unemployed, youth), and people not in the labour force (e.g. people marginally attached to the labour force, discouraged job seekers). Extensions to the basic labour force framework are discussed in detail in subsequent chapters.

DEFINITIONS USED IN ABS SURVEYS

2.25 The ABS produces estimates of the currently economically active population in a number of household surveys. Definitions of the currently economically active population used by the ABS align closely with international standards and guidelines.

GENERAL PRINCIPLES

2.26 The ABS uses the labour force framework as outlined above for classifying the Australian population according to their labour force status (employed, unemployed or not in the labour force). Labour force status is derived by asking a series of questions about a person's work-related activities and availability for work in the reference period. The criteria for determining a person's labour force status are (broadly) as follows:

- whether a person has work (i.e. economic work, including production and processing of primary products for own consumption, own-account construction and other production of fixed assets for own use, but excluding activities such as unpaid domestic work and volunteer community services); and
- whether those who do not have work are:
 - actively looking for work; and
 - available to start work.

2.27 The determination of labour force status from these criteria is as follows:

- a person who meets the first criterion is classified as employed and hence in the labour force (currently economically active)
- a person who meets all of the subsequent criteria (i.e. without work, actively looking for work, and available to start work) is classified as unemployed and hence in the labour force (currently economically active)
- a person not classified as employed or unemployed is classified as not in the labour force (not currently economically active).

DEFINITIONS USED IN ABS HOUSEHOLD SURVEYS

2.28 Labour force status is determined in a number of ABS household surveys. The Labour Force Survey is designed to produce precise estimates of employment and unemployment, and the definitions used align closely with international standards and guidelines. In other household surveys where labour force status is used as an explanatory or classificatory variable, it is generally not practical to determine employment and unemployment as precisely as in the Labour Force Survey. While aggregates produced from these other surveys are designed to be consistent with the international concepts of employment and unemployment, the treatment of certain small population groups is simpler than that used in the Labour Force Survey.

Labour Force Survey

2.29 Estimates of the currently economically active population produced from the Labour Force Survey align closely with the international concepts and definitions outlined above. The paragraphs below describe the scope of the population for which estimates are made, and the definition of labour force status used in the Labour Force Survey.

Scope

2.30 The scope of the population for which estimates are made is confined to the civilian, 'usually resident' population aged 15 years and over. The 'usually resident' population also excludes non-Australian defence personnel (and their dependants) stationed in Australia, diplomatic personnel of overseas governments, and people who are usually resident in other countries and are temporarily (footnote 2) residing in Australia.

2.31 The Labour Force Survey excludes Australian defence personnel, because of practical collection difficulties and the low numbers involved. Where an estimate is required of the total labour force, for example in international comparisons collated by the ILO, survey estimates are supplemented by administrative counts of the defence forces.

2.32 An age limit of 15 years and over is used in the Labour Force Survey. Australian labour and compulsory schooling legislation have resulted in low numbers of young people being involved in economic activity. While such legislation varies from state to state, the net result is that age 15 is the lowest practical limit at which it is feasible and cost-effective to measure the participation of young people in economic activity with acceptable accuracy.

Labour force status

2.33 The definitions of 'employed' and 'unemployed' used in the Labour Force Survey are explained below. Diagram 2.2 illustrates the differences between 'employed', 'unemployed' and 'not in the labour force'.

2.34 Employed are defined as people aged 15 and over who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in kind, in a job or business or on a farm (comprising employees, employers and own account workers); or
- worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers); or
- were employees who had a job but were not at work and were:
 - away from work for less than four weeks up to the end of the reference week; or
 - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week; or
 - away from work as a standard work or shift arrangement; or
 - on strike or locked out; or

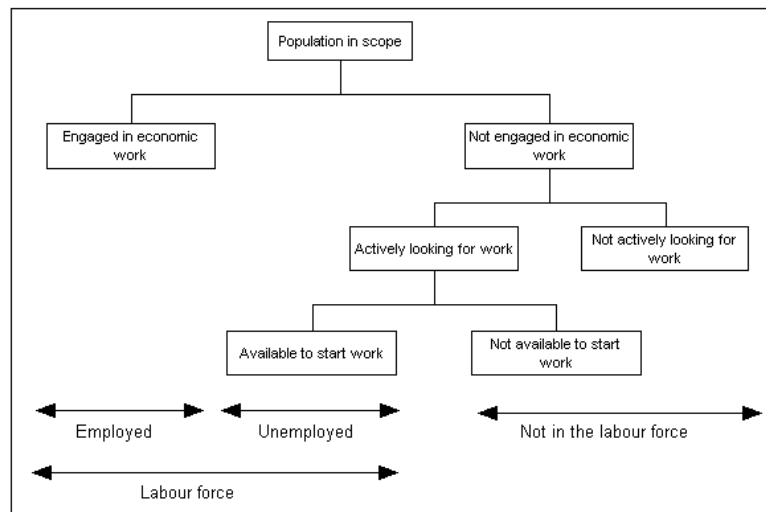
- on workers' compensation and expected to be returning to their job; or
- were employers or own account workers, who had a job, business or farm, but were not at work.

2.35 Unemployed are defined as people aged 15 and over who were not employed during the reference week, and:

- had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or
- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

2.36 Persons not in the labour force are defined as people aged 15 and over who were neither employed nor unemployed, as defined. They include: people who were keeping house (unpaid); people who were retired, voluntarily inactive, or permanently unable to work; people in institutions (hospitals, gaols, sanatoriums, etc.); members of contemplative religious orders; and people whose only activity during the reference week was jury service or unpaid voluntary work for a charitable organisation.

2.2 THE LABOUR FORCE STATUS CONCEPTUAL FRAMEWORK



2.37 The section below discusses the treatment in the Labour Force Survey of particular groups of people as employed, unemployed or not in the labour force. These groups include: participants in labour market programs (such as the 'Work for the Dole', 'Community Development Employment Projects' and 'Structured Training and Employment Project' schemes); students; contributing family workers; and future starters.

Participants in labour market programs

2.38 A wide range of labour market programs are provided by governments. These programs aim to: assist the efficient functioning of the labour market; help individuals and industry to improve the productivity and skills of the labour force; and improve the skills and employment prospects of people disadvantaged in the labour market. Programs implemented by governments take various forms including wage subsidies to employers, vocational training, and paid and unpaid work experience.

2.39 The Labour Force Survey does not ask any questions directly related to participation in labour market programs. Such information is neither necessary nor sufficient to determine labour force status. Individual participants are counted as employed, unemployed or not in the labour force according to economic (work-related) activity undertaken in the survey reference period. The labour force measure, based on economic activity tests, is thus consistent over time and independent of administrative changes to labour market programs or their eligibility rules.

2.40 Participants in programs involving a form of wages subsidy paid directly to employers - people working for pay in a job for which their employer receives a government subsidy are 'working in a job' (employed) regardless of the subsidy (about which the person may have no knowledge).

2.41 Participants in programs involving training but no subsidy (paid either to employers or participants) - if the participant worked for pay in a job (or was temporarily away from work) during the reference week they should be classified as employed. If they did no paid work (and were not temporarily away from work) they are classified as either unemployed or not in the labour force depending on whether they actively looked for, and were available to commence work, in the survey reference period.

2.42 Below are some common Labour Market Programs and how the participants of these programs are treated in the Labour Force Survey.

2.43 People on a 'Work for the Dole' scheme - 'Work for the Dole' is a government program aimed at providing work experience to improve the skills, and future (paid) employment prospects, of people registered for unemployment benefits. Under 'Work for the Dole' schemes, to maintain their eligibility for benefits, people are required to work on not-for-profit community-based projects for a number of hours per week.

2.44 Superficially, such people might be regarded as 'employed' as they are working for one hour or more and receive a payment. However, they are not paid for their work by the organisations undertaking the community projects. The participants are receiving only their unemployment benefit entitlement (footnote 3), paid directly by the administering government agency. As the community organisations do not have employer/employee relationships with the scheme participants, activity in a 'Work for the Dole' scheme is not considered to be engagement in an employee job.

2.45 Accordingly, the labour force status of people participating in 'Work for the Dole' schemes is determined according to economic (work-related) activity undertaken in the survey reference period. They are classified either as unemployed or not in the labour force depending on

whether they actively looked for, and were available to commence work, in the survey reference period.

2.46 Community Development Employment Projects scheme - this scheme of the Federal Government provides local employment opportunities for Aboriginal and Torres Strait Islander communities. Under the scheme, Indigenous communities and organisations can receive a grant, similar in value to the collective unemployment benefit entitlements of participating community members, to undertake a wide range of community development projects. Individuals can choose whether or not to participate in the scheme. Participants forgo their unemployment benefits in exchange for paid employment in the scheme. The work in which they might engage is determined by the community or organisation, and includes activities such as housing repairs and maintenance, artefact production, road works, market gardening, fishing and other business and cultural activities.

2.47 Under the Community Development Employment Projects scheme, the community meets all legal responsibilities to its workers including the provision of award wages and conditions, workers' compensation insurance, and income tax liabilities. Accordingly, an employment relationship is deemed to exist between the community (employer) and the members of the community undertaking work (employees). Participation in the scheme is considered as engagement in a paid employment job, and participants are classified as employed.

2.48 Structured Training and Employment Project scheme - this scheme of the Federal Government is aimed at providing long term employment opportunities for unemployed Indigenous Australians. The scheme involves two forms of assistance.

2.49 The first form of assistance involves the provision of a wage subsidy directly to a business employing a participant. In this situation there is a clear employee and employer relationship and therefore participants are considered employed.

2.50 The second form of assistance involves providing 'job readiness' training to participants, which can include unpaid work experience or training. Participants in this situation have not formed an employee - employer relationship and therefore would be considered as either unemployed or not in the labour force depending on whether they actively looked for, and were available to commence work, in the survey reference period.

Students

2.51 People engaged in full-time or part-time study who satisfy the criteria for classification as employed are treated in the same way as any other group. Their labour force status is determined according to economic (work-related) activity undertaken in the survey reference period.

Contributing family workers

2.52 People working without pay in an economic enterprise operated by a related person are called 'contributing family workers'. They are classified as 'employed' if they worked one hour or more in the reference week, and as 'unemployed' or 'not in the labour force' if they did not work during the reference week.

2.53 Although ILO guidelines indicate that an unpaid family worker is a person working without pay in an economic enterprise operated by a related person living in the same household (footnote 4), in Australia there is no requirement for the related person to be living in the same household.

Future starters

2.54 Future starters are those people who were not employed during the reference week, were waiting to start a job within four weeks from the end of the reference week, and could have started in the reference week if the job had been available then.

2.55 Under ILO guidelines, future starters do not have to be actively looking for work in order to be classified as unemployed. Until February 2004, the Labour Force Survey definition of unemployed only included the subset of future starters who had actively looked for work in the four weeks to the end of the reference week. Hence, the Labour Force Survey treatment of future starters was not fully consistent with the ILO standards because the precondition of active job search was not waived, so that some future starters were defined as 'not in the labour force'. From February 2004, future starters who had not actively looked for work are classified as unemployed in the Labour Force Survey, in line with ILO guidelines. Labour Force Survey estimates were revised back to April 2001 to reflect this change. This revision created a small trend break at April 2001 in unemployed persons and unemployment rate series. For further information on this change, see pages 11 and 12 of Information Paper: Forthcoming Changes to Labour Force Statistics, 2003 (cat. no. 6292.0).

Other ABS household surveys

2.56 Most other ABS household surveys use one of the two alternative questionnaire modules: the reduced questionnaire module (used for personal interviews), or the self-enumerated questionnaire module, to produce estimates of the currently economically active population. While these modules are designed to be consistent with the international guidelines, there are some differences between estimates produced from the Labour Force Survey and those produced from surveys using these modules. These differences are due to differences in survey scope, and in the definitions of employment and unemployment used.

Scope

2.57 The scope of the survey population varies across household surveys. While it is sometimes broader than that used in the Labour Force Survey, it is often narrower. All ABS household surveys are restricted to the usually resident population but, unlike the Labour Force Survey, other household surveys may not be restricted to the civilian population, nor only to people aged 15 years and over (for example the scope of the Census of Population and Housing includes all the usually resident population). However, estimates of labour force status from these surveys are generally only produced for people aged 15 years and over, or for people aged between 15 years and some upper age cut-off. Some household surveys exclude people living in non-private dwellings (footnote 5) from scope, and unlike the Labour Force Survey may therefore exclude various institutionalised and other people.

Labour force status

2.58 Compared with the estimates of labour force aggregates from the Labour Force Survey, the reduced questionnaire module recommended for use in personal interviews results in higher estimates of employed, lower estimates of unemployed, and higher estimates of people not in the labour force. This arises from the simplified treatment of certain categories of people:

- the reduced questionnaire module for personal interviews does not ask respondents about the reasons they did not actively look for work. Therefore, the reduced questionnaire module does not identify those 'future starters' who had not actively looked for work (see paragraphs 2.51 and 2.52). When the reduced questionnaire module is used, these

'future starters' are classified as not in the labour force rather than as unemployed (on average, about 3% of unemployed); and

- in the Labour Force Survey, people on workers' compensation 'last week' and not returning (or who do not know if they will be returning) to work, and people away from work for four weeks or more without pay, are classified as either unemployed or not in the labour force. Where the reduced questionnaire module is used, all people absent from work, but who usually work one hour or more a week, are classified as employed (about 0.8% of employed).

Most Special Social Surveys use the reduced questionnaire module for personal interviews, to determine labour force status.

2.59 The self-enumerated questionnaire module also produces different estimates of employment, unemployment and not in the labour force, compared with the Labour Force Survey questionnaire. Some differences result from the shortened set of questions which, like the questions recommended for use in personal interview, cannot determine labour force status as precisely as the Labour Force Survey does. Other differences result from the self-enumerated nature of the questions and the inevitable differences in interpretation among respondents. As a result, labour force status from the self-enumerated questionnaire module is best used as an explanatory or classificatory variable to explain other phenomena, rather than for detailed analysis of the labour force itself. The Census of Population and Housing uses the self-enumerated questionnaire module.

DATA SOURCES

2.60 Estimates of the currently economically active population are available from:

- the Labour Force Survey
- the Census of Population and Housing
- Special Social Surveys.

LABOUR FORCE SURVEY

2.61 The Labour Force Survey is the official source of Australian employment and unemployment statistics. It produces estimates of the currently economically active population (labour force) according to the concepts and definitions outlined above (paragraphs 2.29-2.52). The population in scope for the Labour Force Survey is the civilian, usually resident, population aged 15 years and over. Estimates from the Labour Force Survey are available by state/territory, capital city/rest of state, and for 77 Labour Force Survey regions. For more information on LFS regions see the article LFS regions, published in the July 2004 issue of Australian Labour Market Statistics (cat. no. 6105.0). Chapter 16 (paragraphs 16.34-16.48) provides more information on geographic classifications available from ABS household surveys. For more detail on the content and methodology of the Labour Force Survey see Chapter 20.

CENSUS OF POPULATION AND HOUSING

2.62 The Census of Population and Housing uses the self-enumerated questionnaire module to produce aggregates of labour force status consistent with the international standards. However, because the self-enumerated questionnaire module uses a limited set of questions to determine labour force status, the results are not strictly comparable with those produced from other surveys (see paragraph 2.56). For these reasons, labour force status aggregates from the Census should be used with caution in analyses where labour force activities are a major focus. When comparing aggregates of labour force status from the Census of Population and Housing with aggregates from other surveys, users should also note differences in scope and methodologies across the surveys. For example the scope of the Census of Population and Housing, in including all the usually resident population (e.g. permanent defence forces as well as the civilian population), is less restrictive than that of the Labour Force Survey. See Chapter 19 for more information on the Census of Population and Housing.

SPECIAL SOCIAL SURVEYS

2.63 Most Special Social Surveys use the reduced questionnaire module for personal interviews to produce aggregates of labour force status consistent with international standards. However, because the reduced questionnaire module uses fewer questions to determine labour force status, the results are not strictly comparable with those produced from the Labour Force Survey (see paragraph 2.55). When comparing aggregates of labour force status from Special Social Surveys with aggregates from other surveys, users should also note differences in scope and methodologies across the surveys.

2.64 The labour-related Special Social Surveys, namely the Survey of Employment and Unemployment Patterns (Chapter 24) and the Survey of Employment Arrangements and Superannuation (Chapter 23), both produced aggregates of labour force status. Unlike most Special Social Surveys, neither of these surveys used the reduced questionnaire module to determine labour force status. Instead both surveys used questions asked in the Labour Force Survey to determine labour force status.

2.65 The Time Use Survey provides information on the daily activity patterns of people in Australia. It provides information about patterns of paid work and unpaid household and community work. The ABS has used data from the Time Use Survey to estimate the value of unpaid work falling outside conventional definitions of economic production (see paragraph 2.9). These estimates comprise unpaid household work, volunteer work and community work. For further details on the Time Use Survey see How Australians Use Their Time (cat. no. 4153.0). For further information on ABS estimates of unpaid household work see Unpaid Work and the Australian Economy (cat. no. 5240.0).

MEASURES OF THE CURRENTLY ECONOMICALLY ACTIVE POPULATION

2.66 Measures of the currently economically active population include labour force participation rates, population ratios and estimates of gross flows.

POPULATION RATIOS AND LABOUR FORCE PARTICIPATION RATES

2.67 Labour Force participation rates and other population ratios are used extensively in analyses of labour statistics, in particular to monitor changes in the size and composition of the supply of labour.

2.68 Population ratios provide information on the percentage of people in a population with certain characteristics. For example an

employment to population ratio provides information on the percentage of the population in employment. Population ratios can be calculated for the entire population, or groups within the population; for example, an unemployment to population ratio for people aged 15-19 years provides information on the percentage of people aged 15-19 years who are unemployed.

2.69 The labour force participation rate for any group within the population is the labour force component of that group, expressed as a percentage of the population in the same group.

2.70 The Labour Force Survey publishes labour force participation rates and other population ratios on a regular basis. For more information on the contents and methodology of this survey refer to Chapter 20.

GROSS FLOWS

2.71 Estimates of movements between labour force states (employment, unemployment, not in the labour force) from one month to the next are produced from the Labour Force Survey, and referred to as gross flows. The measurement of gross flows provides insight into the nature of changes in each of the labour force categories. For example, in a period of expanding job opportunities when unemployment is not declining, gross flows data may show that many people previously classified as not in the labour force are now satisfying the criteria for being classified as unemployed. The analysis of gross flows data also provides a good indicator of trends and cyclical activity within the labour market.

2.72 Data on gross flows are available from the Labour Force Survey (cat. no. 6291.0.55.001, data cube GM1). Estimates relate only to those people in private dwellings for whom information was obtained in successive surveys (about 80% of all people in the survey). For further information on estimates of gross flows and on other outputs from the Labour Force Survey, or its methodology, refer to Chapter 20.

FURTHER INFORMATION

2.73 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206, or email labour.statistics@abs.gov.au.

FOOTNOTES

1. Fixed assets are defined in the SNA as produced assets that are themselves used repeatedly, or continuously, in processes of production for more than one year (SNA93, 10.7). < back

2. People who are usually resident in other countries are considered to be temporarily residing in Australia if the total duration of their stay in Australia is less than 12 months. < back

3. Plus an allowance to cover expenses associated with participation, such as transport, meals and so on. < back

4. Hussmanns, R., Mehran, F., Verma, V., Surveys of economically active population, employment, unemployment and underemployment: An ILO manual on concepts and methods, International Labour Office, Geneva 1990. < back

5. Non-private dwellings are establishments which provide predominantly short-term accommodation for communal or group living and often provide common eating facilities. Non-private dwellings include hotels, motels, hostels, hospitals, religious institutions providing accommodation, educational institutions providing accommodation, prisons, boarding houses, and short-stay caravan parks. Some non-private dwellings are designed for a particular purpose (e.g. hospitals) and, as such, provide accommodation for specific groups of people. For further information on non-private dwellings and ABS household survey design see paragraphs 18.11, 18.12, 18.16 and 18.30-18.32, in Chapter 18. < back

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Chapter 3. Employment

CHAPTER 3. EMPLOYMENT

INTRODUCTION

3.1 The labour force framework discussed in Chapter 2 categorises the population into three mutually exclusive groups: employed; unemployed; and not in the labour force. This chapter discusses the concept of employment, and contrasts estimates of employment produced from the Labour Force Survey with those collected in other labour statistics series. The concepts of unemployment and not in the labour force are discussed in subsequent chapters.

CONCEPTS AND INTERNATIONAL GUIDELINES

3.2 Thirteenth International Conference of Labour Statisticians (ICLS) 1982 is based on the principle that a person must have been engaged in some economic activity (work) over a short reference period. The concept of economic activity, discussed in Chapter 2, is linked to the concept of production as defined by the SNA. Any activity falling within the System of National Accounts (SNA) production boundary is considered as work for the purposes of measuring employment. Employment is defined broadly in the international guidelines as all persons engaged in some work during the reference period, as well as some persons temporarily absent from work.

3.3 According to the international guidelines, employed persons comprise those above the age specified for measuring the economically active population, in paid employment or self-employment, during a specified reference period. Paid employment includes persons who performed some work for wages or salary, in cash or in kind, and persons temporarily absent from a paid employment job but who retained a formal attachment to that job. Self-employment includes persons who performed some work for profit or family gain, in cash or in kind, and those with an enterprise but temporarily not at work during the specified reference period for some specific reason.

3.4 The notion of 'some work' is interpreted as work for at least one hour. This approach ensures consistency between measures of employment and measures of production of goods and services, as all work (however little) contributing to national production is included in measures of employment.

3.5 The international definition of employment specifies criteria for determining 'temporary absence from work'. Different criteria are used for absences from paid employment and self-employment. Persons absent from paid employment are considered employed provided they

retain formal attachment to a job or business. Formal attachment occurs when one or more of the following criteria are met:

- the continued receipt of wage or salary during the absence from work;
- an assurance of a return to work following the end of the absence from work, or an agreement as to the date of return (or at least a reasonable expectation of a return to work); and
- a short duration of absence from the job (which, wherever relevant, may be the duration for which workers can receive compensation benefits without obligation to accept other jobs).

3.6 The notion of formal attachment applies only in respect of absences from jobs involving paid employment. Persons in self-employment who are 'with an enterprise but not at work' (i.e. temporarily absent from work for some specific reason) are considered employed. The international standards do not set out formal criteria for temporary absence from self-employment because of the diverse working patterns of the self-employed. However, guidelines for the self-employed recognise that the continued existence of the enterprise and an acceptable duration of absence (indicated, for example, by the reason for absence) may be sufficient. The treatment of absent contributing family workers in the guidelines is consistent with this view; as they are not considered to have an enterprise of their own, they cannot be 'with an enterprise but not at work', and should not be included among the employed.

DEFINITIONS USED IN ABS SURVEYS

3.7 The ABS produces estimates of employment from both household and business surveys. The definitions of employment used in household surveys are designed to be consistent with the international standards. The definition of employment used in business surveys relates more closely to paid employment.

DEFINITIONS USED IN ABS HOUSEHOLD SURVEYS

3.8 Three different definitions of employment are used in ABS household surveys. The Labour Force Survey is designed to produce precise estimates of employment (and unemployment), and the definition used aligns closely with international standards and guidelines. In other household surveys where employment is an explanatory variable or classificatory variable, it is generally not practical to determine employment as precisely as in the Labour Force Survey. While estimates of employment produced from these surveys are designed to be consistent with the international concept of employment, the definition used is slightly broader than that used in the Labour Force Survey. Two alternative questionnaire modules are used to produce estimates of employment in these surveys - a reduced questionnaire module (for use in personal interviews), and a self-enumerated questionnaire module.

Labour Force Survey

3.9 The definition of employment used in the Labour Force Survey aligns closely with the concepts and international definitions outlined above. Employed persons are defined as all persons 15 years of age and over who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in kind, in a job or business or on a farm (comprising employees, employers and own account workers); or
- worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers); or
- were employees who had a job but were not at work and were:
 - away from work for less than four weeks up to the end of the reference week; or
 - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week; or
 - away from work as a standard work or shift arrangement; or
 - on strike or locked out; or
 - on workers' compensation and expected to be returning to their job; or
- were employers or own-account workers, who had a job, business or farm, but were not at work.

3.10 For employees absent from work, a condition of formal job attachment is considered to exist in any of the following circumstances:

- short periods of absence (less than four weeks to the end of the reference week);
- long periods of absence (four weeks or more to the end of the reference week) and receipt of wages or salary for some or all of the four week period to the end of the reference week, such as persons on paid leave;
- any period of absence and away from work as a standard work or shift arrangement;
- any period of absence and on strike or locked out;
- any period of absence and continued receipt of workers' compensation payments and expected to return to work for the current employer.

3.11 As previously discussed, the international definition of employment recommends the use of certain criteria for determining formal job attachment when dealing with absences from paid employment in the reference week. All three criteria are used in the Labour Force Survey:

- short periods of absence are consistent with the third criterion specified in the international definition: a short duration of absence from the job (which, wherever relevant, may be the duration for which workers can receive compensation benefits without obligation to accept other jobs) - that is, the duration of absence should be short to be considered temporary (note that the international definition does not make recommendations on the duration of temporary absences);
- the receipt of pay, during long periods of absence, or as workers' compensation, is consistent with the first criterion specified in the international definition, continued receipt of wage or salary during the absence from work;
- assurance of a return to work following the end of an absence from work, or an agreement as to the date of return (or at least a reasonable expectation of a return to work), is tested in the case of absence on workers' compensation. However, for employees away from work as a standard work or shift arrangement, and for employees on strike or locked out, it is assumed that an assurance of a return to work or an agreement as to the date of return exists.

3.12 Of the self-employed, employers and own account workers absent from work during the reference week are defined as employed without further testing of 'formal job attachment'. Contributing family workers who are absent from work in the reference week are not considered to be employed. This is consistent with the international guidelines discussed above.

Other ABS household surveys

3.13 Most other ABS household surveys use one of the two alternative questionnaire modules (the reduced questionnaire module used for personal interviews, or the self-enumerated questionnaire module) to produce employment estimates. As discussed above, employment is more broadly defined in these modules than in the Labour Force Survey:

- most Special Social Surveys use the reduced questionnaire module for personal interviews. Employment in this module is defined as all (in scope) persons who worked for one hour or more during the reference week for pay, profit, commission, or payment-in-kind, or without pay in a family business; or who had a job but were not at work; and
- the Census of Population and Housing uses the self-enumerated questionnaire module. Employment in this module is defined as all persons aged 15 years and over who, during the reference week, worked for payment or profit or as unpaid workers in a family business, or who had a job from which they were on leave or otherwise temporarily absent.

3.14 Estimates of employment produced from the reduced questionnaire module for personal interviews are slightly higher (around 0.1%) than those produced from the Labour Force Survey. This results from differences in the treatment of persons temporarily away from work. In the reduced questionnaire module all persons away from work are classified as employed. In comparison, the Labour Force Survey classifies persons away from work as employed if:

- they are in paid employment and have formal job attachment; or
- they are employers or own account workers.

3.15 The self-enumerated questionnaire module also produces different estimates of employment from the Labour Force Survey. Some differences result from the shortened set of questions, which cannot determine employment as precisely as the Labour Force Survey (as the latter uses a longer set of questions to determine whether persons are employed). The self-enumeration nature of the questions also causes some differences, due to differences in interpretation among respondents. As a result, employment estimates from the self-enumerated questionnaire module are best used as explanatory or classificatory variables to explain other phenomena, rather than for detailed analysis of the labour force itself.

DEFINITION OF EMPLOYMENT USED IN ABS BUSINESS SURVEYS

3.16 Concepts of employment used in ABS business surveys are narrower than the concept used in ABS household surveys. While estimates of employment from household surveys are of persons engaged in economic activity, estimates from business surveys are of jobs involving paid employment. There are two important distinctions between these estimates: the first relates to the statistical unit being measured, i.e. persons versus jobs; and the second to the concept being measured, i.e. (total) employment versus paid employment. These are discussed further below.

3.17 First, estimates of employment from business surveys refer to jobs rather than persons. For example persons holding jobs with different employers would be counted in ABS household surveys as employed once, but in ABS business surveys would be counted once for each job held.

3.18 Second, estimates of employment from business surveys mainly relate to paid employment. Paid employment is a component of total employment; when combined with self-employment, it would provide a concept of employment that is consistent with the international concepts. However, the coverage of paid employment applied in ABS business surveys is narrower than that outlined in the international guidelines. It excludes:

- jobs involving paid employment that do not appear on business payrolls (from which information on employment is sourced within businesses), such as jobs that are paid in kind only, and jobs from which occupants are absent without pay (for a lengthy period); and
- jobs involving paid employment in businesses that have limited coverage on the ABS Business Register (from which the samples for most ABS business surveys are drawn), such as private households engaging staff.

3.19 Some industry and economy-wide ABS business surveys, however, do include a component of self-employment as well as paid employment in their surveys. For example, working proprietors and partners are included in the Economic Activity Survey.

3.20 Estimates of the number of paid employment jobs (also referred to as employee jobs) from ABS business surveys are most commonly compared to estimates of the number of persons in paid employment jobs (also referred to as employees) from ABS household surveys. However, estimates of employees from household surveys are not equivalent to estimates of employee jobs from business surveys and, when comparing estimates, the differences outlined above should be considered.

DATA SOURCES

3.21 Estimates of employment are available from the following ABS household surveys:

- the Labour Force Survey;
- the Census of Population and Housing; and
- Special Social Surveys.

3.22 Estimates of employee jobs are produced from the following ABS business surveys:

- the Survey of Employment and Earnings (Public Sector only);
- the Economic Activity Survey (predominantly Private Sector); and
- from time to time, business surveys targeted to particular industries or sectors.

LABOUR FORCE SURVEY

3.23 The monthly Labour Force Survey is the official source for Australian employment and unemployment statistics. The definition of employment used in the Labour Force Survey is outlined above. The survey uses a comprehensive and detailed set of questions to precisely

measure the numbers and certain characteristics of persons in employment and unemployment as well as persons not currently economically active. Estimates from the Labour Force Survey are available by State/Territory, capital city/rest of State, and 67 sub-State regions (see Chapter 16 for more information on geographic classifications available from ABS household surveys). For more detail on the content and methodology of the Labour Force Survey see Chapter 20.

CENSUS OF POPULATION AND HOUSING

3.24 As discussed above (paragraphs 3.13-3.15), the Census of Population and Housing uses the self-enumerated questionnaire module to produce employment estimates consistent with the international standards. However, because the self-enumerated questionnaire module defines employment less precisely than the Labour Force Survey, estimates produced are not strictly comparable with those from the Labour Force Survey. For these reasons, employment estimates from the Census should be used with caution in analyses where labour force activities are a major focus. When comparing estimates of employment from the Census of Population and Housing with those produced from the Labour Force Survey, users should also note differences between the two surveys in scope (for example, the inclusion of permanent defence forces in Census employment data) and methodology. Refer to Chapter 19 for further information on the Census of Population and Housing. The differences are also discussed in detail in the article *Census and the Labour Force Survey*, in the Australian Labour Market Statistics, Oct 2007 (cat. no. 6105.0).

SPECIAL SOCIAL SURVEYS

3.25 As discussed above (paragraphs 3.13-3.15), most Special Social Surveys use the reduced questionnaire module for personal interviews to produce employment estimates that are consistent with the international standards. However, because the reduced questionnaire module defines employment less precisely than the Labour Force Survey, estimates produced are not strictly comparable with those produced from the Labour Force Survey. When comparing employment estimates from Special Social Surveys with estimates from the Labour Force Survey, users should also note differences in scope and methodologies across the surveys.

3.26 The labour-related Special Social Surveys - the Survey of Employment Arrangements, Retirement and Superannuation Chapter 23 and the Survey of Employment and Unemployment Patterns Chapter 24 - both produced estimates of employment. Unlike most Special Social Surveys, neither of these surveys used the reduced questionnaire module to produce measures of employment as described above. Instead, both surveys used questions asked in the Labour Force Survey. However, the questions used in the Survey of Employment Arrangements and Superannuation were modified slightly from those used in the Labour Force Survey and collected information about two jobs where appropriate. For more information on these surveys, refer to the chapters listed above.

SURVEY OF EMPLOYMENT AND EARNINGS

3.27 The Survey of Employment and Earnings is a business survey producing estimates of employee jobs in the public sector. There are conceptual reasons (as discussed in paragraphs 3.16-3.20) as well as methodological reasons for differences in estimates of employment produced from business and household surveys. For further information on the scope and collection methodology of this survey refer to Chapter 31.

ECONOMIC ACTIVITY SURVEY

3.28 The Economic Activity Survey is a business survey producing employment estimates. There are conceptual as well as methodological reasons for differences in estimates of employment produced from business and household surveys. For further information on the scope and collection methodology of this survey refer to Chapter 33.

FURTHER INFORMATION

3.29 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 4. Employment Measures and Classifications

CHAPTER 4. EMPLOYMENT MEASURES AND CLASSIFICATIONS

4.0.1 There are a number of classifications and other descriptions related to employment arrangements discussed in this chapter.

Employment Classifications group the employed population into mutually exclusive categories which describe a certain employment characteristic or status. Classifications which allocate employed people based on their relationship to the business are: status in employment; employment type; and form of employment (see Chapter 4.1). Descriptive employment classifications elaborate on the characteristics of a person's job(s) include occupation; full-time/part-time status; managerial/non-managerial status; and adult/junior status (see Chapter 4.2.).

There are four main **measures of hours worked**, namely: usual hours worked; actual hours worked; hours paid for; and aggregate monthly hours worked (see Chapter 4.3). These measures are used to categorise employed people, for example as either full-time or part-time.

Employment arrangements provide detailed information on the nature of employment, how people work and their terms of employment (see Chapter 4.4). Employment arrangements include various aspects of job stability and flexibility, such as whether earnings or hours vary from week to week, as well as whether an employed person has entitlements such as paid leave.

FURTHER INFORMATION

4.0.2 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email labour.statistics@abs.gov.au.

4.1 Employment Relationship Classifications

CHAPTER 4.1 EMPLOYMENT RELATIONSHIP CLASSIFICATIONS

4.1.1 There are three classifications which describe the relationship of an employed person to the business they work in, namely:

- Status in Employment,
- Employment Type
- Form of Employment

These are described below.

STATUS IN EMPLOYMENT

4.1.2 The Australian Status in Employment classification is based on the ILO's 1993 resolution concerning the International Classification of Status in Employment (ICSE-93). The ICSE classifies job holders according to the type of economic risk held between the job holder and other persons or legal organisations. The distinction between paid employment jobs and self-employment jobs is central to the classification. Paid employment (employee) jobs are those where remuneration is not directly dependent on the profits of the unit for which the job holder works. Self-employment jobs are those jobs where remuneration depends directly on the profits (or future profits) derived from the goods and services produced. The ICSE distinguishes five groups: employees (paid employment jobs) and four types of self employment jobs: employers; own account workers; contributing family workers; and members of producers' cooperatives.

4.1.3 The Australian Status in Employment classification classifies job holders according to their perception of the relationship between themselves and the enterprise for which they work, together with the legal status of the enterprise where this can be established.

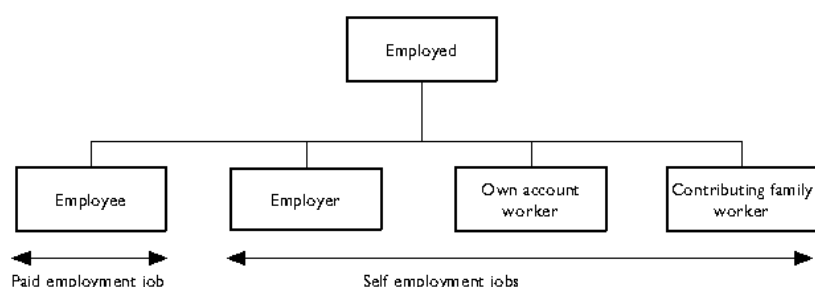
The groups distinguished in the Australian classification are:

- employee - a person who works for a public or private employer and receives remuneration in wages, salary, a retainer fee from their employer while working on a commission basis, tips, piece-rates, or payment in kind; or a person who operates his or her own incorporated enterprise with or without hiring employees;
- employer - a person who operates his or her own unincorporated economic enterprise or engages independently in a profession or trade, and hires one or more employees;
- own account worker - a person who operates his or her own unincorporated economic enterprise or engages independently in a profession or trade, and hires no employees; and
- contributing family worker - a person who works without pay in an economic enterprise operated by a relative.

4.1.4 The legal status concept is used to classify owner-managers of incorporated enterprises as employees rather than as employers or own account workers, for consistency with Australian National Accounts practice (the Australian System of National Accounts). Individuals who work in their own business are queried about the legal status of the business. Although an individual may 'own' a business, if it is incorporated, the individual is employed under the account of the business, and is not held personally liable for the economic enterprise should it become insolvent. Those individuals who own (or part own) an incorporated business, with or without hiring one or more employees, are therefore classified as employees. If the business is unincorporated (and hence the owner is liable for the economic enterprise), then owner-managers who hire employees are classified as employers and those who do not are classified as own account workers.

4.1.5 The Australian Status in Employment classification is depicted in diagram 4.1.1.

4.1.1 AUSTRALIAN STATUS IN EMPLOYMENT CLASSIFICATION



4.1.6 The Status in Employment classification is available from most ABS household surveys producing estimates of employment, including the Labour Force Survey; supplementary surveys; and most Special Social Surveys. The status in employment classification is not available from business surveys producing estimates of employee jobs. However, as discussed in Chapter 3. Employment, estimates of employee jobs from business surveys are related to, but not the same as, estimates of persons in paid employment (employees) from household surveys.

EMPLOYMENT TYPE

4.1.7 Employment Type categorises employed people according to the nature of their employment relationship to the business or nature of their contract. Under the Employment Type classification, owner managers of incorporated enterprises (OMIEs) are separated from employees (whereas they are combined in the Status in Employment classification).

4.1.8 OMIEs have a legal identity distinct from their business. However compared to employees, OMIEs have greater autonomy in making decisions over employment arrangements such as setting of hours and determination of pay. Based on this, the Employment Type classification separates OMIEs from employees, and thus the Employment Type classification reflects the nature of the relationship to the business, i.e. as a business owner or working for someone else.

4.1.9 In the Employment Type classification, employees are further divided into those with and without paid leave entitlements (paid sick leave and/or paid holiday leave), while employers and own account workers are combined to form 'owner managers of unincorporated enterprises' (OMUEs).

4.1.10 Diagram 4.1.2 illustrates how Employment Type compares with status in employment.

4.1.2 CLASSIFYING EMPLOYMENT TYPE

Status in Employment	Employment Type
Employees	Employees with paid leave entitlements
	Employees without paid leave entitlements
	Owner-managers of incorporated enterprises
Employers	Owner-managers of unincorporated enterprises
Own account workers	
Contributing family workers	Contributing family workers

4.1.11 The Employment Type classification is available from most ABS household surveys producing estimates of employment, including supplementary surveys: Forms of Employment Survey (FOES), Employee Earnings, Benefits and Trade Union Membership (EEBTUM); the Census of Population and Housing; and most Special Social Surveys.

FORMS OF EMPLOYMENT

4.1.12 Another classification which extends the employment type framework is known as the Form of Employment (FOE) classification. This classification was developed in 2008 following revised concepts relating to 'contract work' and the need to more precisely identify the group of employed people working as 'independent contractors'. The FOE classification identifies the following three groups of employed people.

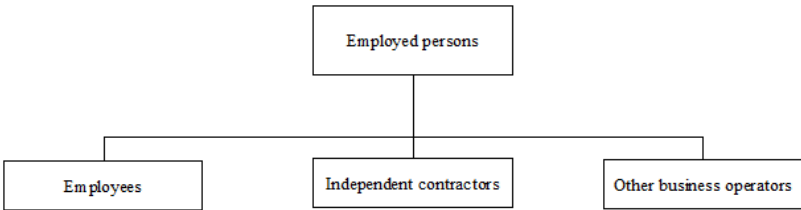
Employees: People who work for a public or private employer and receive remuneration in wages or salary. Employees are engaged under a contract of service (an employment contract) and take directions from their employer/supervisor/manager/foreman on how work is performed.

Independent contractors: People who operate their own business and who contract to perform services for others without having the legal status of an employee, i.e. people who are engaged by clients, rather than an employer. Independent contractors are engaged under a contract for services (a commercial contract). The employment of independent contractors may take a variety of forms: for example, they may have a direct relationship with a client, or they may work through an intermediary. Independent contractors may have employees, however they spend most of their time directly engaged with clients or on client tasks, rather than managing their staff.

Other business operators are defined as people who operate their own business, with or without employees, but who are not operating as independent contractors. Other business operators are distinguished from independent contractors in that they usually generate their income from managing their staff or from selling goods or services to the public, rather than providing a labour service directly to a client. Other business operators spend little time working on client tasks with most of their time spent on managing their employees and/or business.

4.1.13 The FOE classification is depicted in diagram 4.1.3.

4.1.3 FORM OF EMPLOYMENT CLASSIFICATION



4.1.14 The FOE classification is available from the Forms of Employment Survey. Further information on the Forms of Employment Survey can be found in Chapter 21.3. Information about the methodology used to classify employed people using the FOE classification, and a comparison of the FOE and employment type classifications, can be found in Appendix 1 of *Forms of Employment, Australia*(cat. no. 6359.0).

4.1.15 Further information about these classifications, their comparisons and limitations was published in a feature article in *Australian Labour Market Statistics, July 2011* (Cat. No. 6105.0).

4.2 Descriptive Employment Classifications

CHAPTER 4.2 DESCRIPTIVE EMPLOYMENT CLASSIFICATIONS

4.2.1 There are many attributes needed to descriptively categorise employment, in addition to describing the employment relationship

between an employed person and the business in which they work (as outlined in Chapter 4.1). This chapter outlines some further classifications describing various aspects about the characteristics of employment and jobs, with Chapter 4.3 and Chapter 4.4 providing more detail on hours worked and employment arrangements respectively.

OCCUPATION

4.2.2 The occupation classification used in ABS surveys is the Australian and New Zealand Standard Classification of Occupations (ANZSCO) First Edition, Revision 1, 2009. ANZSCO is a skill-based classification of occupations which covers all jobs in the Australian and New Zealand workforce. Occupation information collected in surveys and the Census provides a description of a person's job and refers to the kind of work undertaken by an employed person irrespective of the industry in which that job is held. Jobs and occupations are fundamental concepts to the classification. A job is a set of tasks designed to be performed by one individual for an employer, whereas an occupation is a set of jobs with similar sets of tasks. Occupations are classified according to two criteria - skill level and skill specialisation.

Skill level is a function of the range and complexity of the set of tasks involved. The greater the range and complexity of the set of tasks, the greater the skill level of the occupation. The criteria used in ANZSCO to measure skill level are the formal education and/or training, previous experience and on-the-job training usually required to competently perform the set of tasks required for that occupation.

Skill specialisation of an occupation is based on the field of knowledge required, tools and equipment used, materials worked on, and goods or services provided in relation to the tasks performed. Skill specialisation is used to group occupations according to type, rather than level of skill.

4.2.3 The structure of ANZSCO comprises five hierarchical levels: Major Groups (the broadest level), Sub-Major Groups, Minor Groups, Unit Groups and Occupations (the finest level). The Major Groups are distinguished from each other on the basis of skill level, and, where necessary, the broad concept of skill specialisation. The eight Major Groups are:

- 1 Managers
- 2 Professionals
- 3 Technicians and Trades Workers
- 4 Community and Personal Service Workers
- 5 Clerical and Administrative Workers
- 6 Sales Workers
- 7 Machinery Operators and Drivers
- 8 Labourers

4.2.4 The sub-major group, minor group, unit group and occupation levels provide increasingly detailed dissections of the broad categories. For further information on ANZSCO, refer to ANZSCO: Australian and New Zealand Standard Classification of Occupation, First Edition, Revision 1 (cat. no. 1220.0).

4.2.5 Occupation data are available from the Labour Force Survey (quarterly), a number of supplementary topics to the Labour Force Survey, most Special Social Surveys, the five-yearly Census of Population and Housing and employer surveys such as the Survey of Employee Earnings and Hours.

FULL-TIME/PART-TIME STATUS

4.2.6 The notion of what constitutes a standard full-time working week has required continual re-examination over several decades with the progressive decline in standard hours of work, accompanied by substantial growth in the number of persons employed under part-time working arrangements.

4.2.7 In the absence of any internationally accepted definition of full-time work, two approaches have been taken in various countries. The first is objective and is based on the number of hours worked. This approach is relatively simple to apply without requiring the respondent to know details about their contractual arrangements on hours worked, but provides no flexibility to accommodate variations in 'normal' hours of work in different industries and occupations. The second is more subjective and involves classifying workers as full-time or part-time based on the self-assessment of the person concerned irrespective of the number of hours actually worked. The self-assessment approach does accommodate such differences but is based solely on self-perception, and its accuracy is dependent on respondents' knowledge of whether they work full-time or part-time in their activity. Both approaches are used in ABS surveys, with ABS household surveys primarily using the hours based method since 2003. For further detail on hours worked see Chapter 4.3: Hours of work.

4.2.8 The full-time/part-time status classification differs from, and should not be confused with, the criteria for being casual (employees with or without leave entitlements). While the classification of full-time and part-time employment is based on hours worked, whether a person is classified as casual is unrelated to hours worked. For further information see Chapter 4.4: Employment arrangements.

4.2.9 Persons working part-time hours should not be confused with underemployed workers (see Chapter 5) even though both may be working less than 35 hours per week. Part-time workers can be classified into two groups: fully employed part-time workers; ie those who don't want to work more hours, and underemployed part-time workers who work part-time on an involuntary basis (i.e. they want more hours of work) and who are available to work those extra hours.

ABS Household Surveys

4.2.10 The approach used in the Labour Force Survey and adopted in many other ABS household surveys is to define full-time and part-time status in terms of hours worked. The definition used in the Labour Force Survey and related surveys designates full-time workers as persons who (a) usually work 35 hours or more per week in all jobs, or (b) although usually working less than 35 hours a week, actually worked 35 hours or more during the survey reference week. Part-time workers are those who usually work less than 35 hours per week, and either did so during the reference week, or were not at work in the reference week. Under this definition, persons with more than one job are defined as full-time if they work 35 hours or more across all of their jobs.

4.2.11 The approach based on respondents' perception of their full-time or part-time status is used in some supplementary topics to the Labour Force Survey, for example Persons Not In the Labour Force (see Chapter 21.10.). This approach is most often used where

information is sought about work that is not currently being undertaken and where recall problems may be encountered using a more objective approach (e.g. for jobs held 12 months prior to the survey date).

4.2.12 Full-time/part-time status is available from most ABS labour-related household surveys including: the monthly Labour Force Survey; labour-related supplementary topics to the monthly Labour Force Survey; various Special Social Surveys; and the Census of Population and Housing.

4.2.13 The precise definition used in different collections varies, so please refer to the explanatory material for specific collections. For example in the Census, full-time/part-time status is based on actual hours worked in the week prior to the Census.

ABS Business Surveys

4.2.14 In ABS business surveys, the classification of employee jobs as full-time is based on whether normal hours are equal to, or greater than, what has been agreed to as being full-time under the relevant award or agreement (i.e. normal hours). If there are no agreed or award hours associated with the job, then it is classified as full-time where the usual hours of work per week are 35 or more. Part-time jobs are those which are not full-time.

4.2.15 The full-time/part-time status classification is used in the following ABS business surveys: the Survey of Employee Earnings and Hours (see Chapter 30; and the Survey of Average Weekly Earnings (see Chapter 29).

MANAGERIAL/NON-MANAGERIAL STATUS

4.2.16 Managerial employees are defined as those who have strategic responsibilities in the conduct or operations of the organisation and/or are in charge of a significant number of employees. They do not usually have overtime payment entitlements. Jobs occupied by professionally qualified persons are defined as managerial only if the occupant primarily performs managerial tasks. Jobs occupied by working proprietors of incorporated businesses (also referred to as owner-managers of incorporated enterprises) are considered managerial. Non-managerial employee jobs include clerical staff, tradespersons, non-managerial professionals, apprentices, trainees and cadets.

4.2.17 Care should be taken when comparing estimates based on ANZSCO groups with estimates based on the managerial status of employees. Jobs with managerial status include those classified to ANZSCO categories other than the ANZSCO major group Managers, e.g. Professionals according to ANZSCO may be categorised as having managerial status. Conversely, estimates for non-managerial jobs include some employees classified to the ANZSCO major group Managers.

4.2.18 The managerial/non-managerial classification is only available from the Survey of Employee Earnings and Hours.

ADULT/JUNIOR STATUS

4.2.19 The adult/junior classification is mainly available from ABS labour-related business surveys. In these surveys, adults are defined as employees aged 21 years or over, and employees who are paid at the adult rate regardless of their age (employees aged under 21 may be paid at the full adult rate for their occupation). Juniors are employees aged under 21 who are not paid at the adult rate of pay for their occupation. ABS labour-related business surveys for which the adult/junior classification is available include the Survey of Employee Earnings and Hours (see Chapter 30). The Survey of Average Weekly Earnings (see Chapter 29) also produces estimates relating to full-time adult jobs.

4.2.20 In household surveys, the age of each respondent is collected. Furthermore since 2009, the labour supplementary Survey of Employee Earnings, Benefits and Trade Union Membership has collected the data item 'Whether paid full adult rate of pay.

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4.3 Hours of Work

CHAPTER 4.3 HOURS OF WORK

4.3.1 "Hours worked" has been defined in ILO conventions in terms of the time when (paid) employees were at the disposal of an employer; that is, when available to receive work orders from an employer or person in authority, with hours worked covering all jobs. During such periods of availability, workers are expected to be ready to work if work is possible, requested or necessary. This general concept is made meaningful for the self-employed if it is taken to mean time when the self-employed are available to do their work, such as being at the disposal of clients, ready to receive purchase orders or available to make sales, etc. Further information is available in the ILO Resolution concerning the measurement of working time (Eighteenth International Conference of Labour Statisticians, 2008).

4.3.2 Measuring the levels and trends of hours worked for different groups of employed persons is important in order to monitor working and living conditions, as well as analysing economic cycles. Information on hours of work enables various analytical insights such as: classification of employed persons into full-time and part-time status; the identification of underemployed persons; and the creation of aggregate monthly hours worked estimates. The general notion of hours of work encompasses a number of related concepts: hours usually worked; hours actually worked; hours paid for; and normal hours of work.

HOURS USUALLY WORKED

4.3.3 Hours usually worked is the typical number of hours worked in a job for a short reference period (such as one week) that is representative of a longer reference period (eg. a month, quarter, season or year). Usual hours may differ from actual hours worked at a given time if employed people are away from work due to illness, vacation, strike, a change of job or other reasons, or are at work for more hours than normal due to overtime, extra shifts, etc.

4.3.4 When analysing usual hours worked, consideration should be given to appreciate the different perceptions respondents may have when reporting the typical hours they work. The ILO guidelines say that "the typical value may be the modal (most frequently occurring) value of the distribution of hours actually worked per short period over the long observation period, where meaningful." However, it is also possible that respondents average their actual hours worked over a long reference period to derive a typical value for the shorter period.

4.3.5 Measures of hours usually worked (in all jobs) are available from: the Labour Force Survey; and Labour Force Survey supplementary surveys, such as Underemployed Workers, Employee Earnings, Benefits and Trade Union Membership (EEBTUM), Forms of Employment, and Working Time Arrangements. Measures of usual hours of work are not available from ABS business surveys, and are not collected in the Census of Population and Housing.

HOURS ACTUALLY WORKED

4.3.6 International resolutions relating to actual hours worked adopted by the Eighteenth International Conference of Labour Statisticians (ICLS) in 2008 refer to wage and salaried employees. There are no international recommendations relating to actual hours worked for all categories of the employed population. However the ILO, in its manual 'Surveys of Economically Active Population, Employment, Unemployment and Underemployment' suggests that actual hours worked in a given job should be defined to cover all types of employment in labour force surveys. Hours actually worked is the time spent in a job for the performance of activities that contribute to the production of goods and services during a specified short or long reference period.

4.3.7 According to the ILO resolution, actual hours of work measured within the System of National Accounts production boundary includes all time spent directly on, and in relation to, productive activities; down time; and resting time such as:

- time spent in addition to hours worked during normal periods of work (including overtime);
- time spent at the place of work on activities such as the preparation of the workplace, repairs and maintenance, preparation and cleaning of tools, and the preparation of receipts, time sheets and reports;
- time spent at the place of work waiting or standing by due to machinery or process breakdown, accident, lack of supplies or power or internet access, etc; and
- time corresponding to short rest periods (resting time) including tea and coffee breaks or prayer breaks.

Excluded are:

- hours paid for but not worked such as paid annual leave, public holidays or paid sick leave;
- meal breaks; and
- for paid employment, time spent on travel to and from work when no productive activity for the job is performed (even when paid by the employer).

4.3.8 The ILO suggests that for multiple job holders, actual hours worked should include the hours worked at all jobs.

4.3.9 ABS measures of actual hours of work are consistent with the international recommendations outlined above.

4.3.10 Measures of actual hours of work are available from a number of ABS household surveys: the Labour Force Survey; various labour-related supplementary topics to the Labour Force Survey; various Special Social Surveys, including the Survey of Employment Arrangements, Retirement and Superannuation; and the Census of Population and Housing. Measures of actual hours of work are not available from ABS business surveys.

AGGREGATE HOURS WORKED

4.3.11 Aggregate Monthly Hours Worked is a measure of the total number of hours worked by employed persons in a calendar month. The methodology used to produce aggregate monthly hours worked means that they are synthetic, or modelled estimates.

4.3.12 Seasonally adjusted aggregate monthly hours worked estimates are produced by combining two series.

4.3.13 The first series is the seasonally adjusted actual hours worked in the reference week, adjusted for holiday timing. These estimates provide an indication of movements across months.

4.3.14 The second series is an annual benchmark series containing original estimates of actual hours worked in each financial year. The annual actual hours worked original estimates are calculated by determining the actual hours worked for each week of the financial year. As actual hours worked are only collected in respect of the reference week of the Labour Force Survey, actual hours worked for weeks not covered by the Labour Force Survey are imputed based on the actual hours worked for the reference weeks in the adjacent months. The imputation accounts for, amongst other things, the effect of public holidays on hours worked, that is it accounts for holidays that occur in the reference week of the Labour Force Survey as well as holidays that occur in weeks other than the reference week.

4.3.15 These two series are then combined to produce the seasonally adjusted aggregate monthly hours worked series. A trend series is also subsequently produced. This approach ensures that:

- The level of the aggregate monthly hours worked (seasonally adjusted) series is consistent with the level of the annual benchmarks, and
- The movements in the series are consistent with the movements in the seasonally adjusted actual hours worked in the reference week series.

4.3.16 Estimates of aggregate hours worked are available from the Labour Force Survey. For more information on aggregate monthly hours worked, refer to the *Information Paper: Expansion of Hours Worked Estimates from the Labour Force Survey* (Cat. No. 6290.0.55.001).

HOURS PAID FOR

4.3.17 Hours paid for applies to a paid-employment job and to a self-employment job paid on the basis of time units. For a paid-employment job, hours paid for is the time for which payment has been received from the employer (at normal premium rates, in cash or in kind) during a specified short or long reference period, regardless of whether the hours were actually worked or not. Hours paid for:

- includes time paid but not worked such as paid annual leave, paid public holidays and certain absences such as paid sick leave; and
- excludes time worked but not paid by the employer, such as unpaid overtime, and absences that are not paid by the employer,

such as unpaid educational leave or maternity leave that is paid through transfers by government from social security systems.

4.3.18 As such, hours paid for will differ from the number of hours actually worked if an employee works more or less hours than their paid hours. Hours paid for will also differ from usual hours in some cases, for example if an employee performs long hours in some weeks to have rostered days or weeks off.

4.3.19 Measures of hours paid for are collected from business payroll records in the ABS business survey of Employee Earnings and Hours (EEH). EEH also collects information on the following components:

- ordinary time hours paid for - defined as the award, standard or agreed hours of work paid for at the ordinary rate. Ordinary hours paid for include: stand-by or reporting time hours which are part of standard hours of work, and hours of paid annual leave, paid sick leave and long service leave taken during the reference period. Ordinary time hours paid for at penalty rates (e.g. for shift work) are not converted to their ordinary time equivalent; and
- overtime hours paid for - defined as hours paid for in excess of award, standard or agreed hours of work, at both standard and penalty rates.

4.3.20 The sole source of hours paid for from ABS household surveys is the Labour Force supplementary survey EEBTUM.

4.3.21 Measures of average (mean) and median hours paid for and average hourly earnings are available from both EEH and EEBTUM.

NORMAL HOURS OF WORK

4.3.22 Normal hours of work is defined in a 2008 ICLS resolution as "the hours fixed by or in pursuance of laws or regulations, collective agreements or arbitral awards to be performed in specified paid-employment jobs over a specified reference period, such as per day, week, month or year (within the System of National Accounts production boundary). Normal hours of work may also apply to a job in self-employment when the hours are in accordance with the hours fixed for all jobs in a specific industry or occupation (such as for drivers to ensure public safety)."

4.3.23 Measures of normal hours of work are not produced by the ABS. However, the concept is used to assist in allocating respondents in the full-time/part-time status classification in ABS business surveys.

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4.4 Employment Arrangements

CHAPTER 4.4 EMPLOYMENT ARRANGEMENTS

4.4.1 ABS measures of employment arrangements are collected from a number of sources, and include the following aspects:

- Terms of engagement; including casual employment, contract work and labour hire work;
- Job stability and flexibility measures;
- Employment conditions and entitlements.

MEASURES OF CASUAL EMPLOYMENT

4.4.2 In household surveys, the ABS uses 'employees without paid leave entitlements' as the primary measure of casual employment. An employee is considered to be without leave entitlements if they do not identify as having access to either paid holiday or paid sick leave. The ABS also uses other statistical measures relating to casual employment, whether employees perceive their job to be casual, and some surveys collect information on whether a casual loading is received as part of pay. This information helps provide a more complete picture on casual status. Further information and comparison is contained in the feature article Measures of Casual Employment, published in *Australian Labour Market Statistics, October 2008* (cat. no. 6105.0).

4.4.4 The classification used in ABS business surveys is different, classifying employee jobs as either permanent, fixed-term contract or casual, known as 'type of employee'. The classifications used in household and business surveys are discussed further below.

4.4.5 In business surveys, employers are asked to classify whether selected employees are employed under casual, fixed-term contract, or permanent arrangements. Casuals receive a loading or higher rate of pay to compensate for a lack of leave entitlements. Fixed-term contract jobs are those with an employment contract with a specified fixed time frame, while permanent jobs are those with ongoing tenure and access to paid leave.

INDEPENDENT CONTRACTORS

4.4.6 Independent contractors are people who operate their own business and contract to perform services for others without having the legal status of an employee, i.e. people who are engaged by a client rather than an employer. Independent contractors are engaged under a contract for services (a commercial contract), whereas employees are engaged under a contract of service (an employment contract). See the Form of Employment classification in Chapter 4.1: Employment relationship classifications for more details.

EMPLOYEES WORKING ON A FIXED-TERM CONTRACT

4.4.7 A fixed-term contract is an employment contract which specifies that employment with the employer is not expected to continue beyond a particular date or event.

LABOUR HIRE WORKERS

4.4.9 Instead of contacting employers directly, some people engage the services of a labour hire firm or employment agency to act as a third

party to assist in finding suitable employment. Similarly, some businesses use the services of these firms to source labour rather than directly engaging workers.

4.4.10 Labour hire firms and employment agencies are engaged in personnel search, or selection and placement of people for an employing organisation. Such firms may either match employees and employers directly, or might provide labour through their own pool of employees.

4.4.11 Labour hire firms and employment agencies perform a number of functions in the labour market, including maintaining a pool of potential employees, matching a person directly with an appropriate employer and assisting employers to source suitable staff. They often also bear employee labour costs, such as wages, workers compensation and superannuation, which are transferred to employers through service fees.

JOB STABILITY AND FLEXIBILITY MEASURES

4.4.12 Measures of job stability supplement measures of hours of work, full-time and part-time status, and other classifications of jobholders (such as status in employment), in order to further describe the nature of employment conditions. The ABS collects a range of data items related to job stability and flexibility. These include data on the variability of earnings and hours from week to week, whether an employed person has guaranteed minimum hours, whether required to be on call or standby, and whether most hours are worked between 7am and 7pm.

4.4.13 Job flexibility measures include whether employees has say in their start and finish times, choice in holiday timing, whether able to choose to work extra hours in order to take time off, or having an arrangement with one's employer to work from home.

4.4.14 Data on perceptions of working arrangements are also collected. These includes measures such as expectations about tenure (for example whether an employee expects to be able to be with their current employer in 12 months time) or whether a fixed-term contract is expected to be renewed.

EMPLOYMENT CONDITIONS AND ENTITLEMENTS

4.4.15 Along with stability and flexibility measures, the nature of employment can be further characterised by other arrangements, and other entitlements received. Examples of these include whether usually compensated for overtime worked, or whether entitled to other forms of paid leave, such as maternity/paternity leave or long service leave. Depending on the employment relationship, other arrangements such as whether responsible for organising own worker's compensation or liability insurance, or whether the employer/business contributes to superannuation, are relevant.

DATA SOURCES

4.4.16 Estimates on casual employment are available from a variety of sources, including:

- The Forms of Employment Survey (FOES);
- The Survey of Employee Earnings, Benefits and Trade Union Membership (EEBTUM);
- Working Time Arrangements (WTA);
- Multipurpose Household Surveys, including Retirement and Retirement Intentions, and Work-Related Injuries; and
- Special Social Surveys.

4.4.17 Data about the receipt of a casual loading is available from WTA and the Special Social Survey, the Survey of Employment Arrangements, Retirement and Superannuation (SEARS).

4.4.18 Data classifying employees of businesses as either permanent, fixed-term contract, or casual are available from the Survey of Employee Earnings and Hours.

4.4.19 The primary source of information on independent contractors and labour hire work is FOES. This survey also contains information on employees working on a fixed-term contract. The labour hire component is conducted every three years. For further information on FOES see Chapter 21.3.

4.4.20 Estimates on job flexibility and stability are available from many sources, including:

- WTA, (this is the primary source for flexibility and stability measures, but is not conducted frequently);
- FOES;
- Locations of Work, which contains information on whether people work at home or on their employer's premises, and the arrangements of people who work from home;
- SEARS.

4.4.21 For further information on the content and methodology of these surveys, see Chapter 21.16. and Chapter 21.8.

4.4.22 SEARS also collects detailed information about the employment and working arrangements of jobholders, along with information on superannuation, retirement intentions and arrangements, and child care arrangements. For further information on the content and methodology of the SEARS see Chapter 23.

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Chapter 5. Underemployment

CHAPTER 5. UNDEREMPLOYMENT

INTRODUCTION

5.1 The ABS produces a ranges of measures on the performance of the labour market. A measure of underemployment supplements other measures of underutilisation of labour, such as number of unemployed persons Chapter 6 and number of discouraged jobseekers Chapter 7,

to inform the community about the performance of the labour market. This chapter discusses the concepts and definitions underlying measures of underemployment.

CONCEPTS AND INTERNATIONAL GUIDELINES

5.2 Two forms of underemployment are recognised in the current international standards: time-related underemployment, which reflects insufficient hours of work in relation to an alternative employment situation that a person is willing and available to engage in; and inadequate employment situations, which refers to all those in employment who want to change their work activities and/or work environment for a set of reasons chosen according to national circumstances. Such reasons might include: insufficient use of skills and experience; inadequate income; and excessive hours. Employed persons may be simultaneously in time-related underemployment and inadequate employment situations.

5.3 Previous international standards on underemployment identified two concepts of underemployment: one reflecting an insufficient volume of work, referred to as visible underemployment; and one reflecting an insufficient use of skills and experience or low productivity, termed invisible underemployment. Visible underemployment is closely related to time-related underemployment, while invisible underemployment, as it was previously defined, is now one component of inadequate employment situations.

TIME-RELATED UNDEREMPLOYMENT

5.4 According to the international standard, time-related underemployment exists when the hours of work of an employed person are below a threshold, and are insufficient in relation to an alternative employment situation in which the person is willing and available to engage. Table 5.1 sets out the international definition for time-related underemployment.

5.1 INTERNATIONAL DEFINITION OF TIME-RELATED UNDEREMPLOYMENT (ICLS 1998)

Persons in time-related underemployment comprise all employed persons (as defined in current international guidelines) who satisfy the following criteria:

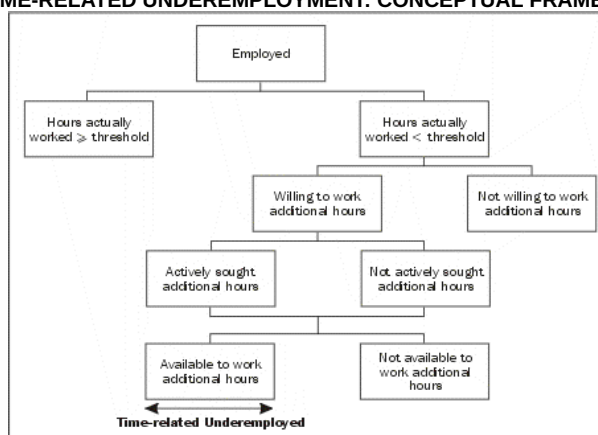
Willing to work additional hours, i.e. wanted another job (or jobs) in addition to their current job (or jobs) to increase their total hours of work; to replace any of their current jobs with another job (or jobs) with increased hours of work; to increase the hours of work in any of their current jobs; or a combination of the above. In order to show how 'willingness to work additional hours' is expressed in terms of action which is meaningful under national circumstances, those who have actively sought to work additional hours should be distinguished from those who have not. Actively seeking to work additional hours is to be defined according to the criteria used in the definition of active job search used for the measurement of the economically active population, also taking into account activities needed to increase the hours of work in the current job.

Available to work additional hours, i.e. are ready, within a specified subsequent period, to work additional hours, given opportunities for additional work. The subsequent period to be specified when determining workers' availability to work additional hours should be chosen in light of national circumstances and comprise the period generally required for workers to leave one job in order to start another.

Worked less than a threshold relating to working time, i.e. persons whose 'hours actually worked' in all jobs during the reference period, as defined in current international guidelines regarding working time statistics, were below a threshold, to be chosen according to national circumstances. This threshold may be determined by e.g. the boundary between full-time and part-time employment, median values, averages, or norms for hours of work as specified in relevant legislation, collective agreements, agreements on working time arrangements or labour practices in countries.

5.5 The concepts underpinning the international definition of time-related underemployment are shown in diagram 5.2. The framework classifies persons who satisfy each of the criteria outlined above - willingness to work additional hours (note that persons actively seeking additional hours of work are distinguished from those who are not); availability to work additional hours; and worked less than a threshold relating to working time - as time-related underemployed.

5.2 TIME-RELATED UNDEREMPLOYMENT: CONCEPTUAL FRAMEWORK



5.6 The current international standard also notes that:

- countries should, in addition, endeavour to identify all workers who were willing and available to work additional hours during the reference period, regardless of the hours they actually worked (i.e. including those who worked more than the threshold hours); and
- countries may want to estimate the volume of time-related underemployment by aggregating the number of days, half-days or hours that each person in time-related underemployment is willing and available to work in addition to the hours actually worked during the reference period without reference to a threshold.

INADEQUATE EMPLOYMENT SITUATIONS

5.7 Indicators of inadequate employment situations describe situations in the workplace which reduce the capacity and wellbeing of workers as compared to an alternative employment situation. However, as noted in the international standard, the statistical definitions and methods necessary to describe inadequate employment situations still have to be developed further. As such, the standard does not define inadequate employment situations. The international standard does, however, identify a number of inadequate employment situations for which countries may wish to consider producing separate indicators. These include:

- skill related underemployment - persons in this form of inadequate employment include employed persons who, during the reference period, wanted or sought to change their current work situation in order to use their current occupational skills more fully, and were available to do so;
- income related underemployment - persons in this form of inadequate employment include employed persons who, during the reference period, wanted or sought to change their current work situation in order to increase income limited by factors such as those listed below, and were available to do so. Factors contributing to income related underemployment include: low levels of organisation of work or productivity; insufficient tools and equipment; insufficient training; and deficient infrastructure; and
- inadequate employment related to excessive hours - situations where employed persons wanted or sought to work fewer hours than they did during the reference period, either in the same job or in another job, with a corresponding reduction of income.

DEFINITIONS USED IN ABS SURVEYS

5.8 For practical reasons, ABS measurement of underemployment is confined to time-related underemployment. The ABS underemployment framework is based on separating employed persons into two mutually exclusive groups:

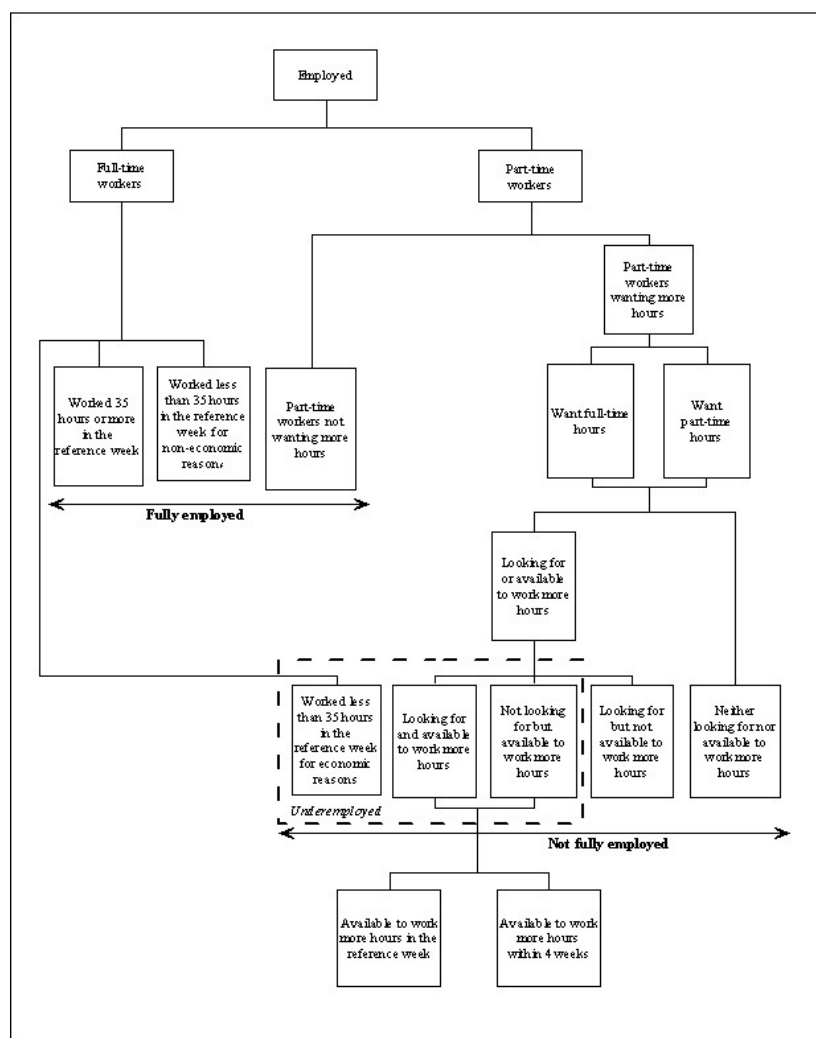
- workers who are considered to be fully employed, and;
- workers who are not fully employed

5.9 Fully employed workers comprise: employed persons who worked full-time during the reference week (includes persons who usually work part-time); employed persons who usually work full-time but worked part-time in the reference week for non-economic (footnote 1) reasons; and part-time workers (usually work part-time and did so in the reference week (footnote 2) who do not want to work additional hours. Full-time workers who worked part-time in the reference week for non-economic reasons are considered to be fully employed because they usually work full-time, and worked part-time in the reference week voluntarily.

5.10 Persons who are not fully employed comprise: part-time workers (usually work part-time and did so in the reference week) who want to work more hours; and full-time workers who worked part-time in the reference week for economic reasons (footnote 3). Time-related underemployed workers (as defined in the ILO guidelines) are a subgroup of persons 'not fully employed'.

5.11 The ABS underemployment framework further classifies persons who are not fully employed according to whether they were looking for and/or available to start work with more hours, and according to the number of additional hours sought. The framework identifies: persons wanting full-time hours; persons wanting more part-time hours; persons who looked for extra work during the four weeks prior to the survey; and persons who were available to start extra work (either in the reference week or in the four weeks subsequent to the survey). It is assumed that full-time workers who worked part-time in the reference week for economic reasons wanted to work full-time in the reference week and would have been available to do so. The ABS underemployment framework is set out in diagram 5.3.

5.3 ABS UNDEREMPLOYMENT FRAMEWORK



COMPARISON OF ABS AND INTERNATIONAL DEFINITIONS

5.12 The ABS underemployment framework is consistent with the ILO concept of time-related underemployment, although the international standards do not specifically identify the group 'fully employed workers' as is the case in the ABS framework.

Worked less than a threshold relating to working time

5.13 The international definition of time-related underemployment includes a threshold relating to working time. Only persons actually working less than the threshold are included in statistics of time-related underemployment. The international standards do not specify the threshold to be used. Instead they suggest a number of alternative approaches which may be suitable.

5.14 The threshold used in the ABS underemployment framework is based on the boundary between full-time and part-time work. Only those employed persons actually working less than 35 hours in the reference week may be further classified as not fully employed. Persons actually working less than 35 hours in the reference week include part-time workers (persons who usually work part-time and did so in the reference week), as well as some full-time workers who actually worked part-time hours in the reference week for non-economic reasons. However, only full-time workers who worked part-time in the reference week for **economic** reasons are classified as not fully employed in the ABS framework. Those who worked part-time in the reference week for non-economic reasons are assumed to be fully employed, on the basis that they usually work full-time, and that they 'voluntarily' worked part-time in the reference week (see paragraphs 5.8 to 5.10).

5.15 Outlined in paragraph 5.6 is a recommendation contained in the international standards that countries endeavour to identify all workers willing and available to work additional hours, regardless of the hours actually worked during the reference period, i.e. involving relaxation of the threshold relating to working time. The ABS collected some information on employees' preferences for additional hours of work (irrespective of how many hours usually worked) in the 2000 and 2007 Survey of Employment Arrangements, Retirement and Superannuation. For further information on the 2000 and 2007 Survey of Employment Arrangements, Retirement and Superannuation see Chapter 23.

Willingness to work additional hours

5.16 In the ABS framework, willingness to work additional hours is tested by asking part-time workers whether they **want** to work additional hours. However, additional information on whether respondents have **actively looked** for additional hours of work is also collected using the same active job search criteria as used for determining unemployment. This information is used to distinguish those who have actively sought to work additional hours from those who have not. This approach is also consistent with the international standards.

Availability to work additional hours

5.17 In the ABS framework, availability to work additional hours is determined both in terms of immediate availability (i.e. available in the reference week), and availability within the following four weeks. The international guidelines are not prescriptive on this issue.

Volume of time-related underemployment

5.18 As outlined in paragraph 5.6, the international standards state that countries may wish to estimate the volume of time-related underemployment. In the annual Labour Force Survey supplementary topic, Underemployed Workers (see paragraph 5.23), information is collected about usual hours worked and preferred number of extra hours, enabling estimates of the total number of additional hours wanted per week to be compiled.

DATA SOURCES

5.19 Estimates of persons not fully employed are available from:

- the Labour Force Survey; and
- the supplement to the Labour Force Survey, the Underemployed Workers Survey.

LABOUR FORCE SURVEY

5.20 The Labour Force Survey collects information on underemployment on a quarterly basis. The survey classifies workers according to the framework outlined above with the following restriction:

- for part-time workers wanting more hours of work, the four week reference period is not used to determine availability. Instead availability is determined using only the reference week (the week before the survey).

5.21 The criteria used in the Labour Force Survey are analogous to the criteria for determining unemployment (that is, actively looking for work and available for work in the reference week). Additional information is also available on full-time workers who usually work part-time hours including: whether want more hours of work; whether looking for more hours of work; and whether available to start more hours of work in the reference week.

5.22 For more information on the content and methodology of the Labour Force Survey, see Chapter 20.

SUPPLEMENTARY SURVEY: UNDEREMPLOYED WORKERS

5.23 The annual Labour Force Survey supplementary topic, Underemployed Workers, is the primary ABS data source on underemployment. The survey classifies workers according to the framework outlined above, comparable with ICLS 1998 and the Labour Force Survey quarterly measure, but with a much wider range of information, for example, on the number of hours usually worked, number of preferred hours, steps taken to find work, and difficulties finding work. For more information on the content and methodology of this survey, see Chapter 21.14.

FURTHER INFORMATION

5.24 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>

FOOTNOTES

1. Non-economic reasons include: illness or injury; leave, holiday or flextime; and personal reasons. <back
2. For further information on the full-time/part-time employment classification refer to Chapter 4. <back
3. Economic reasons include being stood down, or insufficient work being available. <back

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Chapter 6. Unemployment

CHAPTER 6. UNEMPLOYMENT

INTRODUCTION

6.1 The labour force framework discussed in Chapter 2 categorises the population into three mutually exclusive groups: employed; unemployed; and not in the labour force. This chapter discusses in detail the concept of unemployment, and contrasts the measures of unemployment collected in the Labour Force Survey with those collected elsewhere. The chapter also discusses a range of classifications and measures that are related to unemployment.

CONCEPTS AND INTERNATIONAL GUIDELINES

6.2 The international definition of unemployment (Thirteenth International Conference of Labour Statisticians 1982) requires the simultaneous satisfaction of the following criteria:

- without work;
- actively seeking work; and
- currently available for work.

6.3 Unemployed people are therefore defined as people who, during a specified reference period, meet all of the above criteria. In surveys applying the international standards, the active job search criterion is waived for people waiting to start a new job that they have already obtained.

WITHOUT WORK

6.4 The purpose of the 'without work' criterion is to ensure that employment and unemployment are mutually exclusive. As precedence is given to employment, a person should only be classified as unemployed if they do not satisfy the criteria for employment. The 'without work' criterion refers to a total lack of work, that is, not in paid employment or self-employment, as defined in international standards for employment (refer to Chapter 3). People who are 'without work' should not have undertaken any work at all (not even for one hour) during the reference period, nor should they have been temporarily absent from a job to which they have a formal attachment.

6.5 There are other measures of labour underutilisation available to supplement the measures related to unemployment. See Chapter 5 for information on underemployment and Chapter 8 for information on measures of underutilised labour.

ACTIVELY SEEKING WORK

6.6 The 'actively seeking work' criterion requires that at least one active step to seek work (in either paid employment or self-employment) must be taken in the reference period. Active steps to seek employment include: "registration at a public or private employment exchange; application to employers; checking at worksites, farms, factory gates, market or other assembly places; placing or answering newspaper advertisements; seeking assistance of friends or relatives; looking for land, building, machinery, or equipment to establish own enterprise; arranging for financial resources; applying for permits and licences, etc." (Thirteenth International Conference of Labour Statisticians 1982). According to the definition, the job search period may be extended into the period prior to the basic reference period for the collection. The purpose of extending the job search period in this way is to take account of time lags which often follow initial steps to obtain work, and during which jobseekers may not take any other initiatives to find work (e.g. while waiting for outcomes of job applications). A four week reference period is suggested in the guidelines as the practical maximum for a monthly survey.

6.7 The international guidelines note that to be considered undertaking an active job search a person must have done something specific to obtain work before being classified as 'seeking work'. A general declaration of being in search of work is not sufficient.

6.8 The active job search criterion is waived for people waiting to start a new job that they have already obtained and that is to begin after the end of the reference period (these people are referred to as future starters (footnote 1). According to the international standards, future starters need only meet the 'without work' and 'available for work' criteria. The active search criterion is waived because, having already secured employment, people waiting to take up a job may not feel the need to look for work. The international guidelines consider that this group should be treated as unemployed rather than employed because, since they are available to start work, such people would presumably have started work had the job begun earlier and, as such, this group forms part of currently underutilised labour resources.

6.9 The international guidelines recommend that countries develop classifications of people not in the labour force according to the relative strength of their attachment to the labour market. People with marginal attachment include those people who are not in the labour force, wanted to work and were not actively looking for work but were available to start work within four weeks from the end of the reference period. See Chapter 7 for more information about marginal attachment.

CURRENTLY AVAILABLE FOR WORK

6.10 The availability criterion is a test of readiness to start work, to help ensure that a valid current stock measure of the labour supply is produced. In order to be classified as unemployed, people must be available to start work in the reference period. People not available to start work in the reference period (for example, because of impediments to taking up work such as family responsibilities, illness, etc.) should be excluded from estimates of unemployment. While the international standards recommend that the reference period for the availability criterion be the same as the basic reference period for the collection, the standards recognise that many countries prefer to extend the time period. Reasons for choosing a longer reference period include: the fact that not everyone who is seeking work can be expected to take up a job immediately when one is offered; and the fact that there are some forms of employment where workers are employed on a pay period basis and have to wait until a new pay period starts before taking up work.

6.11 The international guidelines recommend that countries develop classifications of people not in the labour force according to the relative strength of their attachment to the labour market. People with marginal attachment include those people who are not in the labour force, wanted to work and had actively looked for work (in the four weeks up to the end of the survey reference week) but did not meet the availability criterion to be classified as unemployed. See Chapter 7 for more information about marginal attachment.

DEFINITIONS USED IN ABS SURVEYS

6.12 The ABS produces estimates of unemployment from most household surveys. The Labour Force Survey is designed to produce precise estimates of unemployment (and employment), and the definition used aligns closely with the international definitions outlined above. In other household surveys where unemployment is an explanatory or classificatory variable the definition of unemployment is less precise than that used in the Labour Force Survey.

LABOUR FORCE SURVEY

6.13 Unemployed persons are defined as all persons aged 15 years and over who were not employed during the reference week, and:

- had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or
- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

6.14 'Actively looking for work' encompasses a range of formal and informal job search activities and includes: writing, telephoning or applying to an employer for work; having an interview with an employer for work; answering an advertisement for a job; checking or registering with a Job Services Australia Provider or any other employment agency; taking steps to purchase or start up own business;

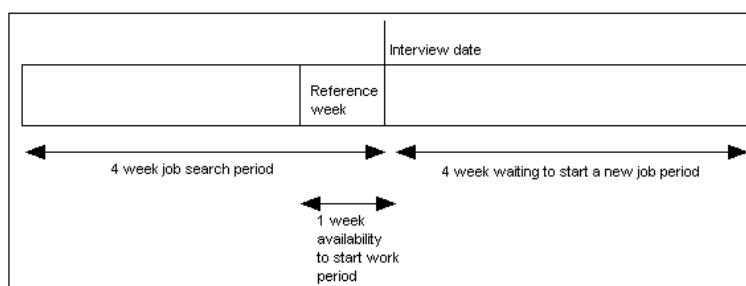
advertising or tendering for work; and contacting friends or relatives.

6.15 People who only looked in newspapers or read job advertisements on the internet are seen as passively, rather than actively, looking for work and so are not considered unemployed. Similarly, just checking noticeboards is not considered an active job search step. The ABS view is that these steps in isolation do not meet the active search criterion. It is impossible to obtain work by looking at a job advertisement without some additional, active, job search step (for example, contacting the employer).

6.16 Future starters are those people who were not employed during the reference week, were waiting to start a job within four weeks from the end of the reference week, and could have started in the reference week if the job had been available then. Under International Labour Organisation (ILO) guidelines, future starters do not have to be actively looking for work in order to be classified as unemployed (see paragraph 6.8). Until February 2004, the Labour Force Survey definition of unemployed only included the subset of future starters who had actively looked for work in the four weeks to the end of the reference week. Hence, the Labour Force Survey treatment of future starters was not fully consistent with the ILO standards because the precondition of active job search was not waived, so that some future starters were defined as 'not in the labour force'. From February 2004, future starters who had not actively looked for work are classified as unemployed in the Labour Force Survey. Labour Force Survey estimates were revised back to April 2001 to reflect this change. This revision creates a small trend break at April 2001 in unemployed persons and unemployment rate series. For further information on this change, see pages 11 and 12 of Information Paper: Forthcoming Changes to Labour Force Statistics, 2003 (cat. no. 6292.0).

6.17 Different reference periods apply for defining not employed, availability to start work, job search, and waiting to start a new job. These are summarised in diagram 6.1. The short, one week reference period ('reference week') is used in defining those 'not employed', and in determining their availability for work, in accordance with the international guidelines. For active job search, a longer (four week) period that includes the reference week is applied. For future starters, a period of four weeks is used for the waiting period beyond the reference week in which the job will commence.

6.1 REFERENCE PERIODS USED IN THE LABOUR FORCE SURVEY FOR DETERMINING UNEMPLOYMENT



OTHER ABS HOUSEHOLD SURVEYS

6.18 To produce unemployment estimates, most other ABS household surveys use one of the two alternative questionnaire modules: the reduced questionnaire module (used for personal interviews); or the self-enumerated questionnaire module. As discussed above, unemployment is defined less precisely in these modules than in the Labour Force Survey.

6.19 Most Special Social Surveys use the reduced questionnaire module for personal interviews. Unemployment in this module is defined as people aged 15 years and over who were not employed during the reference week, but who had actively looked for work and were available to start work. Compared with estimates of unemployment from the Labour Force Survey, the reduced questionnaire module for personal interviews results in lower estimates of unemployment. This arises from the simplified treatment of certain categories of people:

- the reduced questionnaire module for personal interviews does not ask respondents about the reasons they did not actively look for work. Therefore, the reduced questionnaire module does not identify those 'future starters' who had not actively looked for work (see paragraph 6.16). When the reduced questionnaire module is used, these 'future starters' are classified as not in the labour force rather than as unemployed (about 3% of unemployed); and
- in the Labour Force Survey, people on workers' compensation 'last week' and not returning (or who do not know if they will be returning) to work, and people away from work for four weeks or more without pay, are classified as either unemployed or not in the labour force. Where the reduced questionnaire module is used, all people absent from work, but who usually work one hour or more a week, are classified as employed (about 0.8% of employed).

6.20 The self-enumerated questionnaire module used in the Census of Population and Housing also produces different estimates of unemployment when compared to the Labour Force Survey. Some differences result from the shortened set of questions, which cannot determine unemployment as precisely as the Labour Force Survey. Other differences result from the self-enumeration nature of the questions and the inevitable differences in interpretation among respondents. As a result, estimates of unemployment from the self-enumerated questionnaire module are best used as explanatory or classificatory variables to explain other phenomena, rather than for detailed analysis of the labour force itself.

DATA SOURCES

6.21 Unemployment estimates are available from:

- the Labour Force Survey;
- the Census of Population and Housing; and
- Special Social Surveys.

LABOUR FORCE SURVEY

6.22 The Labour Force Survey is the official source of Australian employment and unemployment statistics. The definition of unemployment used in the Labour Force Survey is outlined above. The Labour Force Survey uses a comprehensive and detailed set of questions to precisely measure the numbers and selected characteristics of people in employment and unemployment as well as people who are not

currently economically active. Estimates from the Labour Force Survey are available by state/territory, capital city/rest of state, and for Labour Force Survey regions. (For more information on Labour Force Survey regions see the article Labour Force Survey regions, published in Australian Labour Market Statistics, Jul 2004 (cat. no. 6105.0)). Chapter 16 (paragraphs 16.34-16.48) provides more information on geographic classifications available from ABS household surveys. For more detail on the content and methodology of the Labour Force Survey see Chapter 20.

CENSUS OF POPULATION AND HOUSING

6.23 As discussed in paragraph 6.20, the Census of Population and Housing uses the self-enumerated questionnaire module to produce unemployment estimates that are consistent with the international standards. However, because the self-enumerated questionnaire module defines unemployment less precisely than the Labour Force Survey, the estimates produced are not strictly comparable with those from the Labour Force Survey. For this reason, unemployment estimates from the Census should be used with caution in analyses where labour force activities are a major focus. When comparing estimates of unemployment from the Census of Population and Housing with those produced from the Labour Force Survey, users should also note differences between the two surveys in scope (for example, the inclusion of permanent defence forces in Census employment data) and methodology. See Chapter 19 for more information on the Census of Population and Housing.

SPECIAL SOCIAL SURVEYS

6.24 As discussed in paragraph 6.19, the Special Social Surveys generally use the reduced questionnaire module to produce unemployment estimates consistent with the international standards. However, because the reduced questionnaire module defines unemployment less precisely than the Labour Force Survey, estimates produced are not strictly comparable with those from the Labour Force Survey. When comparing estimates from the Special Social Surveys with those from the Labour Force Survey, users should also note differences in scope and methodology across the collections.

6.25 Unlike most Special Social Surveys, the Survey of Employment Arrangements, Retirement and Superannuation (Chapter 23) and the Survey of Employment and Unemployment Patterns (Chapter 24), did not use the reduced questionnaire module to produce measures of unemployment as described above. Instead, these surveys used the full set of questions asked in the Labour Force Survey.

MEASURES OF UNEMPLOYMENT

UNEMPLOYMENT RATE

6.26 The unemployment rate for any group is defined as the number of unemployed people expressed as a percentage of the labour force (employed plus unemployed). As a measure of the proportion of the labour force that is underutilised, its most important use is as an indicator of the performance of the economy. A high rate of unemployment indicates limited employment opportunities in a labour market that is oversupplied. A low rate of unemployment indicates a tight labour market, potential scarcity of skilled labour, and future cost pressures from wage demands from workers.

6.27 The trend over time in the overall unemployment rate serves as an indicator of the performance of the economy, while the unemployment rate for different groups of people (e.g. younger people, older people, women) identifies areas of social concern when rates for some groups are much higher than for others.

DURATION OF UNEMPLOYMENT

6.28 Conceptually, duration of unemployment is the period of time during which an unemployed person has been in a continuous state of unemployment. To measure this period accurately would require that all three criteria for defining an unemployed person be satisfied continuously and simultaneously over the whole period (i.e. without paid work, actively looking for work and available to commence work). However, it is impractical to apply all three criteria to past periods in a household survey because of the lengthy and complex questioning needed to test for the criteria, and the memory recall difficulties of respondents. For this reason, in practice the measurement of duration of unemployment focuses on the period of time that a person has been without paid work, and/or has been looking for work.

6.29 Duration of unemployment is defined as the elapsed period to the end of the reference week since the time a currently unemployed person began looking for work, or since a person last worked, whichever is the shorter.

FURTHER INFORMATION

6.30 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>

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Chapter 7. Not In the Labour Force

CHAPTER 7. NOT IN THE LABOUR FORCE

INTRODUCTION

7.1 The labour force framework discussed in Chapter 2 categorises the population into three mutually exclusive groups: employed; unemployed; and not in the labour force. This chapter discusses the concept 'not in the labour force'. It follows on from the discussion on employment (Chapter 3) and unemployment (Chapter 6) and concludes the discussion on the currently economically active population.

CONCEPTS AND INTERNATIONAL GUIDELINES

7.2 According to the international standards (Thirteenth International Conference of Labour Statisticians 1982), the population not currently economically active (that is, not in the labour force) comprises all people not currently employed or unemployed, irrespective of age. Theoretically, then, those not in the labour force include people below the age specified for measuring the economically active population and older people who have retired from the workforce. The standards recognise that, for analytical purposes, the economically active population may be related to the total population to derive a crude participation rate or, more appropriately, to the population above the age prescribed for the measurement of the economically active population. In practice, many countries restrict the population scope of household surveys, and provide separately sourced estimates for those below the age limit when a total population estimate or a crude participation rate is required (e.g. for international reporting).

7.3 Not all people who are classified as not in the labour force are voluntarily economically inactive; some want to work but are classified as not in the labour force because they do not satisfy the criteria for unemployment (active job search and availability to start work - see Chapter 6 for further discussion).

7.4 The international guidelines (Thirteenth International Conference of Labour Statisticians 1982) recommend that people not in the labour force may be classified by reasons for inactivity, which are listed as:

- attendance at educational institutions;
- engagement in household duties;
- retirement or old age; and
- other reasons such as infirmity or disablement.

MARGINAL ATTACHMENT TO THE LABOUR FORCE

7.5 The international guidelines (Thirteenth International Conference of Labour Statisticians 1982) suggest that, where the standard definition of employment is used, countries develop classifications of people not in the labour force according to the relative strength of attachment to the labour market. The International Labour Organisation, in its manual *Surveys of Economically Active Population, Employment, Unemployment and Underemployment*, states that people marginally attached to the labour force are those not economically active under the standard definitions of employment and unemployment, but who, following a change in one of the standard definitions (of employment or unemployment, such as active job search or availability to start a job), would be reclassified as economically active.

Discouraged workers

7.6 The guidelines recognise that, though not precise in concept (nor defined in the international guidelines), the term 'discouraged workers' generally refers to people who want a job and are currently available for work but have given up any active job search because they believe they cannot find a job.

DEFINITIONS USED IN ABS SURVEYS

7.7 The ABS produces estimates of persons not in the labour force in a number of household surveys. The definition used is consistent with the concepts outlined above except for people aged less than 15 years, who are generally excluded from ABS measures of labour force status. Persons not in the labour force are therefore generally defined in ABS household collections as 'persons aged 15 years and over who are neither employed nor unemployed'. Those not in the labour force include people who are:

- retired or voluntarily inactive;
- performing home duties or caring for children;
- attending an educational institution;
- experiencing a long-term health condition or disability;
- experiencing a short-term illness or injury;
- looking after an ill or disabled person;
- on a travel, holiday or leisure activity;
- working in an unpaid voluntary job;
- in institutions (hospitals, jails, sanatoriums, etc.);
- permanently unable to work; and
- members of contemplative religious orders.

7.8 Estimates of persons not in the labour force vary across different household surveys because of differences in the definitions of employment and unemployment used in these surveys, and the respective scope of these surveys. As discussed in preceding chapters, the Labour Force Survey is designed to produce precise estimates of employment, unemployment and people not in the labour force, and definitions used align closely with international standards. In other household surveys, it is generally not practical to define employment and unemployment as precisely as in the Labour Force Survey. Two alternative questionnaire modules are used to collect measures of labour force status (i.e. employment, unemployment and persons not in the labour force) in these surveys: the reduced questionnaire module (for use in personal interview) and the self-enumerated questionnaire module.

7.9 Estimates of persons not in the labour force produced from the reduced questionnaire module (used in most Special Social Surveys) are higher than those produced from the Labour Force Survey. This is due to differences in the treatment of certain categories of people:

- the reduced questionnaire module for personal interviews does not ask respondents about the reasons they did not actively look for work. Therefore, the reduced questionnaire module does not identify 'future starters'. Future starters are people who were not employed during the reference week, were waiting to start a job within four weeks from the end of the reference week, and could have started in the reference week if the job had been available then. Using the reduced questionnaire module such people are classified as not in the labour force rather than as unemployed (about 3% of unemployed); and
- in the Labour Force Survey, people on workers' compensation 'last' week and not returning or 'don't know if returning' to work, and people away from work for four weeks or more without pay, are classified as either unemployed or not in the labour force. Using the reduced questionnaire module, all people absent from work, but who usually work one hour or more a week, are classified as employed (about 0.8% of employed).

7.10 The self-enumerated questionnaire module (used in the Census of Population and Housing) also produces different estimates of persons not in the labour force when compared to the Labour Force Survey. Some differences result from the shortened set of questions, which cannot determine labour force status as precisely as the Labour Force Survey. Other differences result from the self-enumeration nature of the questions and the inevitable differences in interpretation across respondents. As a result, estimates of persons not in the labour

force from the self-enumerated questionnaire module are best used as explanatory or classificatory variables to explain other phenomena, rather than for detailed analysis of the labour force itself.

MARGINAL ATTACHMENT TO THE LABOUR FORCE, DISCOURAGED JOB SEEKERS

7.11 Measures of persons marginally attached to the labour force and discouraged job seekers are collected by the ABS annually in a supplementary survey to the Labour Force Survey, Persons Not In the Labour Force, Australia (cat. no. 6220.0). Definitions used in this survey are outlined below.

Marginal attachment

7.12 People with marginal attachment to the labour force comprise those people who are not in the labour force, who wanted to work, and:

- are actively looking for work but are not available to start work in the reference week; or
- are not actively looking for work but are available to start work within four weeks.

7.13 This definition is consistent with that suggested by the international guidelines, and involves relaxing the criteria used to determine unemployment in the Labour Force Survey as follows:

- people meeting the first set of criteria above (wanting to work, actively looking for work, not available to start work) would have been classified as unemployed if the unemployment criterion 'currently available for work' had been waived;
- people meeting the second set of criteria above (wanting to work, not actively looking for work, available to start within four weeks) would have been classified as unemployed if the unemployment criterion 'active job search' had been waived and the criterion 'currently available for work' had been relaxed to include the next four weeks. The circumstances that would permit people to start a job are likely to differ between people in the labour force and those not in the labour force. Accordingly a reference period of four weeks for the availability criterion is adopted, rather than current availability, as for the unemployed.

Discouraged job seekers

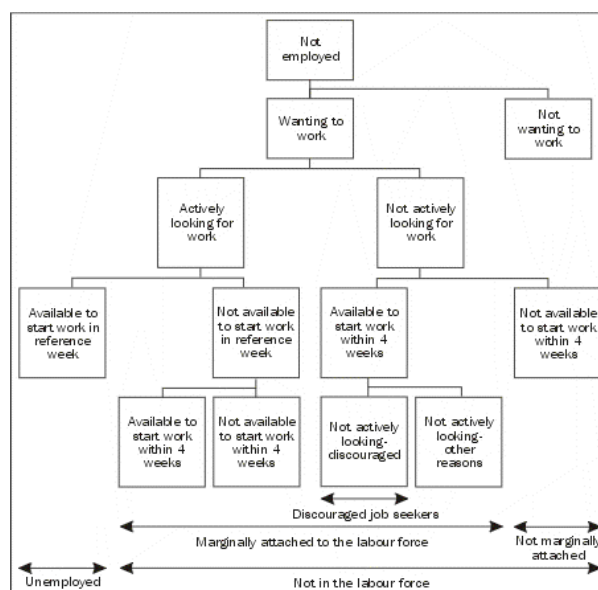
7.14 Discouraged job seekers are defined as people with marginal attachment to the labour force who want to work and could start work within four weeks if offered a job, but who have given up looking for work for reasons associated with the labour market. This group includes people who believe they would not find a job for any of the following reasons:

- considered to be too young or too old by employers;
- believes ill health or disability discourages employers;
- lacked necessary schooling, training, skills or experience;
- difficulties because of language or ethnic background;
- no jobs in their locality or line of work;
- no jobs in suitable hours; and
- no jobs available at all.

This definition of discouraged job seekers is consistent with the definition of discouraged workers outlined in international guidelines.

7.15 Diagram 7.1 illustrates the concepts of not in the labour force, unemployed, marginally attached, and discouraged job seekers, as measured in the Persons Not In the Labour Force Survey.

7.1 CONCEPTUAL FRAMEWORK: PERSONS NOT IN THE LABOUR FORCE



DATA SOURCES

7.16 Estimates of persons not in the labour force are available from:

- the Labour Force Survey;
- the Persons Not In the Labour Force Survey;

- the Census of Population and Housing; and
- Special Social Surveys.

LABOUR FORCE SURVEY

7.17 The Labour Force Survey is the official source for Australian employment and unemployment statistics and defines persons not in the labour force according to the definitions outlined above, using the full questionnaire module. Persons not in the labour force are further classified as:

- looking for work (i.e. either undertook active job search and were not available to commence work, or undertook only passive job search);
- not looking for work;
- permanently unable to work; and
- in institutions.

7.18 Estimates of reason for inactivity, marginal attachment and discouraged job seekers are impractical to collect in the Labour Force Survey, because of cost, time and respondent burden. These topics are therefore measured in an annual supplement to the Labour Force Survey, as noted below. Notwithstanding this, quarterly estimates of the number of marginally attached people who had actively looked for work, were not available to start work in the reference week, but were available to start within four weeks, are available from the Labour Force Survey. For more details on the content and methodology of the Labour Force Survey refer to Chapter 20.

SUPPLEMENTARY SURVEY: PERSONS NOT IN THE LABOUR FORCE

7.19 The supplement to the Labour Force Survey, the Persons Not In the Labour Force Survey, is the main source of detailed information on persons not in the labour force. Persons not in the labour force are defined as for the Labour Force Survey, but excluded people living in very remote parts of Australia. The exclusion of these people will have only a minor impact on any aggregate estimates that are produced for individual states and territories, except the Northern Territory where such people account for around a quarter of the population. In addition, the supplementary surveys exclude institutionalised people, and this group of people represent approximately 4% of people not in the labour force. The survey produces estimates of persons marginally attached to the labour force, of discouraged job seekers, and of persons not in the labour force classified by reasons for inactivity. The definitions for marginal attachment and discouraged job seekers used in the survey are discussed above. For further information on the content and methodology of the survey refer to Chapter 21.10.

CENSUS OF POPULATION AND HOUSING

7.20 The Census of Population and Housing uses the self-enumerated questionnaire module and defines persons not in the labour force as 'persons aged 15 years and over who, during the week before census night, were neither employed nor unemployed'. As discussed previously, the self-enumerated questionnaire uses a limited set of questions to collect labour force status and measures persons not in the labour force more broadly than collections using the full questionnaire modules. The Labour Force Survey and its supplementary topic Persons Not In the Labour Force both use the full questionnaire. When comparing estimates from the Census with those from the Labour Force Survey, or the Persons Not In the Labour Force Survey, users should also note differences in scope and methodologies across the collections. See Chapter 19 for more information on the Census of Population and Housing.

SPECIAL SOCIAL SURVEYS

7.21 The Special Social Surveys generally use the reduced questionnaire module and define persons not in the labour force as 'persons who were neither employed nor unemployed during the reference period'. Estimates are generally only produced for people (in scope of the survey) aged 15 years and over. As discussed previously, the reduced questionnaire module uses a limited set of questions to determine labour force status, and measures 'not in the labour force' less precisely than collections using the full questionnaire modules, including the Labour Force Survey and its supplementary topic Persons Not In the Labour Force. When comparing estimates from the Special Social Surveys with the Labour Force Survey, or with Persons Not In the Labour Force, users should also note differences in scope and methodologies across the collections.

FURTHER INFORMATION

7.22 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 8. Measures of Underutilised Labour

CHAPTER 8. MEASURES OF UNDERUTILISED LABOUR

INTRODUCTION

8.1 In a broad sense labour underutilisation encapsulates the extent to which peoples aspirations for work are not being met. It covers people who are not working but want to work and those who are working but want to work more. More specifically, there are a range of measures that cover different aspects of labour underutilisation. These include, underemployment measures (Chapter 5), unemployment measures (Chapter 6) and measures of marginal attachment to the labour force (Chapter 7). This chapter covers the broad concept of underutilisation and discusses the different types of labour underutilisation measures that are produced by the ABS.

CONCEPTS AND INTERNATIONAL GUIDELINES

BEYOND UNEMPLOYMENT

8.2 The need to produce broader measures of underutilisation emerged from the need to provide more comprehensive information on the state of the labour market than the unemployment rate (footnote 1). The unemployment rate is often one of the most cited indicators of underutilisation within the labour market. However, the standard definition used to define unemployment is necessarily quite restrictive. Consequently, the unemployment rate gives a relatively narrow view of the degree to which labour is being underutilised in the labour market. The production of broader measures of underutilisation is intended to provide a more comprehensive view of the labour market.

8.3 In conceptual terms, underemployment, unemployment and marginal attachment all measure different aspects of labour underutilisation. In isolation these measures provide important contextual information about the degree to which labour is being underutilised. Further information about the definitions and concepts underpinning these measures can be found in the following chapters:

- Chapter 5. Underemployment;
- Chapter 6. Unemployment; and
- Chapter 7. Not In the Labour Force (see section 7.4 Marginal Attachment to the Labour Force).

8.4 While these specific measures provide important information about labour underutilisation, individually they are narrow and thus in isolation do not provide a comprehensive picture of the degree to which labour is being underutilised in the labour market as a whole. By bringing different measures together a broader picture of the degree to which labour is being underutilised can be attained.

8.5 The labour force underutilisation rate and the extended labour force underutilisation rate are both aggregates of the narrower measures that provide a broader picture of labour underutilisation.

MEASURES OF LABOUR UNDERUTILISATION

8.6 Labour underutilisation measures can be divided into two broad types of measurements, headcount measures and volume measures. Headcount measures of labour underutilisation are based on the number of people who are underemployed, unemployed or marginally attached to the labour force. Volume underutilisation measures relate to the number of potential hours of labour that are not utilised. Whether people are unemployed or underemployed, not all people who are in search of work (or more work) are seeking the same number of hours of work. For this reason, volume measures of underutilisation are often more relevant for analysing the spare capacity of the labour force than headcount measures. The various measures that the ABS produces are discussed below.

UNDEREMPLOYED

8.7 Measures of underemployment provide important information on the degree to which labour is being underutilised in the employed population of the labour market. The ABS produces both headcount and volume measures of underemployment. The underemployment rate is the number of underemployed workers expressed as a percentage of the labour force. The volume underemployment rate is the additional hours of labour preferred by underemployed workers expressed as a percentage of the potential hours in the labour force. For more information on underemployment please refer to Chapter 5.

UNEMPLOYED

8.8 Measures of unemployment provide important information on the supply of labour that is immediately available from people who are currently not employed. The ABS produces both headcount and volume measures of unemployment. The unemployment rate is the number of people that are unemployed expressed as a percentage of the labour force. The volume unemployment rate is the hours of labour sought by unemployed people expressed as a percentage of the potential hours in the labour force* (those hours worked by employed persons and those sought by unemployed persons). For more information on underemployment please refer to Chapter 6. Note: Potential hours in the labour force refers to the sum of hours sought by unemployed people, additional hours preferred by underemployed people working part-time, and the hours usually worked by all employed people.

BROADER MEASURES OF LABOUR FORCE UNDERUTILISATION

8.9 The labour force underutilisation rate is an aggregate measure of underutilisation. It is defined as the sum of the number of persons unemployed and underemployed, expressed as a proportion of the labour force. It can also be viewed as the sum of the unemployment rate and the underemployment rate.

8.10 The labour force underutilisation rate is also expressed as a volume measure in the volume labour force underutilisation rate. The volume labour force underutilisation rate is expressed as the total volume of underutilised labour in the labour force (hours sought by unemployed people, plus additional hours preferred by underemployed people), as a percentage of the potential hours in the labour force.

8.11 The extended labour force underutilisation rate is the broadest measure of underutilisation the ABS currently produces and takes the measure of underutilised labour beyond what is conventionally measured in the labour force. The measure includes, in addition to the unemployed and the underemployed, two groups of people with marginal attachment to the labour force:

- persons actively looking for work, who were not available to start work in the reference week, but were available to start work within four weeks; and
- discouraged job seekers (Chapter 7).

8.12 The extended labour force underutilisation rate is expressed as the sum of all the above groups (unemployed, underemployed, and the two marginally attached groups), as a proportion of the labour force augmented by the number of people in the two marginally attached groups.

8.13 The population with marginal attachment to the labour force is a relatively large and heterogeneous group. It includes people who may have a strong likelihood of joining the labour force in the near future, as well as some who have little or no commitment to finding employment. The ABS does provide statistics about this large and diverse group, but does not include the whole group in its broadest supplementary measure of labour underutilisation. However, there may be other subgroups (in addition to the two marginally attached

groups identified above) which fit the requirements of underutilised labour resources. This is currently being investigated by the ABS.

DATA SOURCES

8.14 Official estimates of employment and unemployment are derived from the monthly Labour Force Survey (LFS), while detailed information relating to underemployed workers and persons not in the labour force is collected in LFS supplementary surveys (see Chapter 21.10 and Chapter 21.14 for further information). The ABS measures of labour underutilisation draw on data from the LFS as well as data from LFS supplementary surveys.

8.15 Estimates of labour underemployment, unemployment and underutilisation are available from the following ABS releases: Australian Labour Market Statistics (cat. no. 6105.0) (annual)

- extended labour force underutilisation rate
- underutilisation volume measures

Labour Force, Australia (cat. no. 6202.0)

- underemployment (headcount, quarterly)
- unemployment (headcount, monthly)
- underutilisation rate (quarterly)

FURTHER INFORMATION

8.17 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

FOOTNOTES

1. Beyond the measurement of unemployment and underemployment; The case for extending and amending labour market statistics, International Labour Organisation (ILO) Underutilisation Working Group Report (2011), http://www.ilo.org/stat/Publications/WCMS_166604/lang--en/index.htm <back.

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Chapter 9. Usually Economically Active Population

CHAPTER 9. USUALLY ECONOMICALLY ACTIVE POPULATION

INTRODUCTION

9.1 As discussed in Chapter 2 there are two measures of the economically active population: the currently active population, and the usually active population. This chapter discusses the concepts and measures of the usually active population. Chapters 5 to 8 discussed concepts and measures of the currently active population.

CONCEPTS AND INTERNATIONAL GUIDELINES

9.2 International guidelines on the usually economically active population Thirteenth International Conference of Labour Statisticians, 1982 recommend collection of statistics of usual activity to complement statistics of current activity. Whereas current activity measures provide a snapshot of the economically active population at a point in time, usual activity measures provide a picture of the economically active population over a long period not affected by seasonal patterns of activity, or other labour force movements. The usual activity framework permits the collection of information not only on the main activity of individuals over a long period, but also on their other activities during that period. While this measure is particularly appropriate where frequent collection of the currently active population is not practical, usual activity measures also allow for extended analysis of various aspects of labour dynamics, and of employment and income relationships. Commonly, measurement of the usually active is combined with measures of the currently active in the same survey.

9.3 The International Labour Organisation (ILO), in its manual *Surveys of Economically Active Population, Employment, Unemployment and Underemployment*, outlines a framework for measurement of the usually active population and contrasts it with the framework of the currently active population (the labour force framework). Like the labour force framework, the usually active framework is based on activity status, and classifies the population into mutually exclusive groups of employed, unemployed and not in the labour force. However, unlike the currently active population, the framework of the usually active population is based on the **main** activity undertaken, and over a long rather than short reference period.

9.4 A further difference between the two frameworks concerns the order in which the economically active population and its states of employment and unemployment are determined. Within the usually active framework, individuals are first classified as 'usually active' or 'usually inactive' and then into the employed and unemployed categories. In contrast, in the labour force framework individuals are first identified as employed or unemployed (which together form the labour force, the measure of the current stock of labour supply).

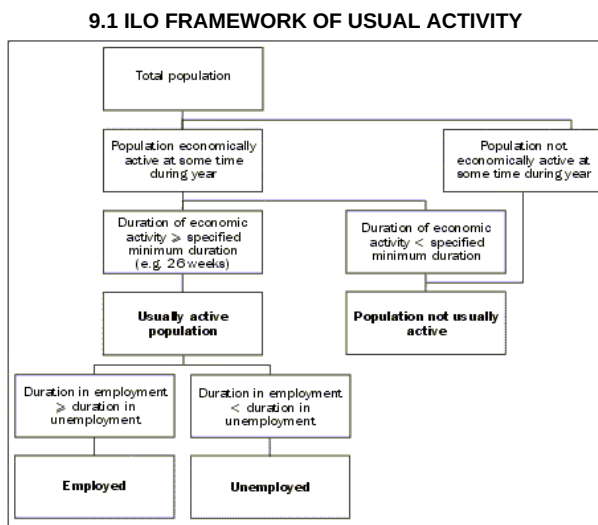
LONG REFERENCE PERIOD

9.5 The international guidelines recommend the use of a long reference period for measurement of the usually economically active population, such as 12 months. The international guidelines consider a range of survey situations where the use of either a fixed or moving reference period may be appropriate, and suggest that for countries where the survey data are collected over a short period (as in Australia) a fixed reference period is preferable.

MAIN ACTIVITY STATUS

9.6 According to the international guidelines, the usually active population comprises all persons above a specified age whose main activity status, as determined in terms of number of weeks or days during a long specified period, was employed or unemployed as defined in the labour force framework.

9.7 The framework for usual activity recommended by the ILO is shown in diagram 9.1.



DEFINITIONS USED IN ABS SURVEYS

9.8 Measures of the usually active population have been collected by the ABS in the supplementary topic to the Labour Force Survey, Labour Force Experience. The concepts and definitions underlying measures from this survey are outlined below.

9.9 The survey collects information about time spent in labour force activities, including episodes of looking for work and time spent out of the labour force, over a 12 month period. Measures of 'worked' and 'looked for work' collected in the survey are based on the respondents' own perception of their labour force status.

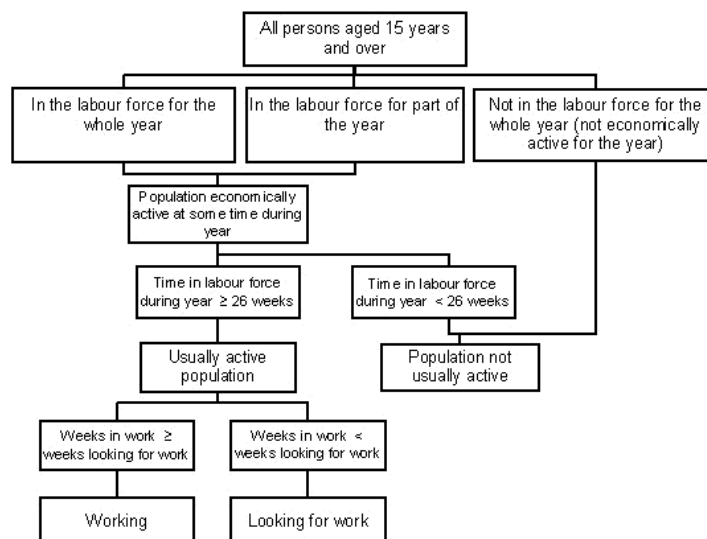
9.10 The survey classifies persons into various labour force states during the survey year based on a more limited set of questions than is used in surveys of the currently active. Accordingly, the terms 'worked' and 'looked for work' are used rather than the more precisely defined 'employed' and 'unemployed'. While this approach is not consistent with the international guidelines, the ILO recognises that measuring employment and unemployment as defined in the labour force framework over a long reference period may not be practical (as they depend on respondent recall in relation to retrospective measures).

9.11 The survey publication Labour Force Experience, Australia (cat. no. 6206.0) presents a framework for the Labour Force Experience Survey which groups the population into three mutually exclusive groups. Using these three groups as a starting point, a framework for determining the usually active/inactive split that aligns with the international guidelines can be constructed:

- The first group, 'in the labour force for the whole year', corresponds to usually active (either employed or unemployed depending on the labour force state in which most time was spent).
- The second group, 'in the labour force for part of the year', corresponds to either usually active or usually inactive depending on the duration of time spent in the labour force. Persons in this group who spent the majority of the 12 month reference period working correspond to usually active 'employed'. Those who spent the majority of the period looking for work correspond to usually active 'unemployed'. Those who spent the majority of the period not in the labour force (neither working nor looking for work) correspond to usually inactive.
- The third group, 'not in the labour force for the whole year', corresponds to usually inactive.

9.12 These concepts are illustrated below in diagram 9.2.

9.2 ABS FRAMEWORK FOR DETERMINING USUAL ACTIVITY (AN EXTENSION OF THE LABOUR FORCE EXPERIENCE SURVEY FRAMEWORK)



DATA SOURCES

9.13 Information about the usually economically active population is available from:

- the supplementary topic to the Labour Force Survey, Labour Force Experience, and various other supplementary topics;
- some Special Social Surveys; and
- the Labour Force Survey.

SUPPLEMENTARY SURVEY: LABOUR FORCE EXPERIENCE

9.14 The primary ABS data source for the usually active population is the supplementary survey to the Labour Force Survey, the Labour Force Experience Survey. This topic classifies persons into the various labour force states using the framework outlined above. For further information on the content or methodology of this survey refer to Chapter 21.5.

OTHER SUPPLEMENTARY SURVEYS

9.15 Other supplementary surveys that collect more detailed information on subgroups within the usual activity framework include: the Labour Mobility Survey, which collects information from persons who had worked during the 12 months prior to the survey reference date; and the Job Search Experience Survey, which collects information from persons who had looked for work during the 12 months prior to the survey reference date. For further information on both these surveys, see Chapter 21.7 and Chapter 21.17.

SPECIAL SOCIAL SURVEYS

9.16 The Special Social Survey, the Survey of Employment and Unemployment Patterns also used the concepts of the usual activity framework, as outlined above, to classify persons into various 'episodes of labour market activity' which included: working; looking for work; and absence from the labour market. For further information on the content and methodology of this survey, see Chapter 24.

LABOUR FORCE SURVEY

9.17 The Labour Force Survey collects related information in its quarterly measures of job tenure (duration with current employer/business) and expectations of job tenure (expected future duration with current employer/business), thus providing complementary measures of labour market dynamics in the form of recent and potential future movements in the labour force, and a broad measure of the extent of short-term employment. For further information on the content or methodology of this survey refer to Chapter 20.

FURTHER INFORMATION

9.18 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 10. Other Measures of the Economically Active Population

CHAPTER 10. OTHER MEASURES OF THE ECONOMICALLY ACTIVE POPULATION

INTRODUCTION

10.1 This chapter addresses a number of ABS statistics relating to the economically active population which were not discussed elsewhere. Previous chapters have discussed the concept of economic activity Chapter 2, and measures of the currently active population (Chapters 3

to 7) and of the usually active population Chapter 9. Concepts underlying the statistics included in this chapter supplement those discussed earlier. They are explained somewhat more briefly because they are discussed in depth in other ABS publications; or are self explanatory; or are ancillary to the main concepts.

LABOUR FORCE GROWTH

10.2 Statistics on labour force entry and exit provide information on labour force growth. Major sources of labour force growth occur through the entry of leavers from educational institutions and from net overseas migration. In addition, some persons re-enter the labour force after a period of absence (e.g. persons who have been looking after children). Reasons for departure from the labour force include, but are not restricted to:

- retirement from work;
- withdrawal from work to gain educational qualifications; and
- withdrawal from work to care for children.

In addition, persons wanting to work may withdraw from job search because they believe jobs are not available (discouraged job seekers - see Chapter 7 for further information on this topic). Departures from the labour force may be either temporary or permanent.

10.3 The surveys outlined below examine subsets of entries to and/or exits from the labour force in detail.

SUPPLEMENTARY SURVEY: SURVEY OF EDUCATION TO WORK

10.4 Data on the transition from education to work are collected in the supplement to the Labour Force Survey, the Education and Work Survey. Information collected includes estimates of numbers of persons entering the labour force after leaving educational institutions, including those who have found work. For more information on this topic refer to Education and Work, Australia (cat. no. 6227.0).

MIGRANTS

10.5 Information on the labour force status of migrants is collected in the supplement to the Labour Force Survey, the Labour Force Status and Other Characteristics of Migrants Survey. Results are published in Characteristics of Recent Migrants, Australia (cat. no. 6250.0).

10.6 In addition to information contained in the Labour Force Survey supplementary survey, the ABS also publishes statistics on net overseas migration in Australian Demographic Statistics (cat. no. 3101.0). For this collection, migrants are defined as permanent residents of Australia (i.e. they have permanent resident status) who were not born in Australia.

SUPPLEMENTARY SURVEY: RETIREMENT AND RETIREMENT INTENTIONS

10.7 Information on retirement from work is collected, from persons aged 45 years or over who have at some time worked two weeks or more, in the Retirement and Retirement Intentions topic, conducted every two years as part of the Multi-Purpose Household Survey. The following definitions apply to this survey:

- intend to retire from full-time work - those persons who indicated that they intend to give up working or looking for full-time work;
- intend to retire from the labour force - those persons who indicated that they intend to give up all labour force activity, i.e. working or looking for work;
- partial retirement - persons who had retired from full-time work or looking for full-time work, and were working or looking for part-time work;
- retired from the Labour Force - persons who had retired from work or looking for work of more than 10 hours per week, and did not intend to work at any time in the future. These persons are considered fully retired. Persons who have never worked more than 10 hours per week are also treated as fully retired; and
- retired from part-time work - persons who had ceased part-time labour force activity, i.e. working or looking for work of 10-34 hours per week, and who did not intend to work or look for work of 10-34 hours per week at any time in the future.

10.8 For more information on the content and methodology of this survey, refer to Chapter 22.2.

OTHER DATA SOURCES

10.9 Other sources of labour statistics related to labour force entry and exit that are discussed in other chapters are outlined below. For more information on these statistics please refer to the chapter's referenced:

- Labour Force Survey (Chapter 20) - data relevant to exits and entries include gross flows statistics which provide information on movements between 'in the labour force' and 'not in the labour force';
- The supplement to the Labour Force Survey, Persons Not In the Labour Force Survey (Chapter 21.10) - data relevant to exits and entries include information on reasons not in the labour force and on work preferences;
- The supplement to the Labour Force Survey, Labour Force Experience Survey (Chapter 21.5) - data relevant to exits and entrance include information on labour force experiences over a 12 month period, including time spent working, looking for work, and neither working nor looking for work;
- The supplement to the Labour Force Survey, Job Search Experience Survey (Chapter 21.17) - data relevant to exits and entries includes information on duration of unemployment, main difficulties in finding work, steps taken to find work and duration of looking for work; and
- Barriers and Incentives to Labour Force Participation (Chapter 21.1) - data relevant to exits and entries include information on barriers to labour force participation, reasons for not being available to work (more) and reasons not looking for (more) work.

LABOUR MARKET DYNAMICS

10.10 Most labour statistics focus on points in time (for example the size and structure of the labour force). Statistics on labour market dynamics focus on changes over time, and relate mainly to the experiences of individuals, both in and out of the labour force.

SUPPLEMENTARY SURVEY: LABOUR MOBILITY

10.11 The purpose of the supplement to the Labour Force Survey, Labour Mobility, Australia (cat. no. 6209.0), is to provide information on job mobility and job tenure. The survey collects information from persons aged 15 years and over who worked at some time during the previous 12 months, and either had a change of employer/business in their main job, or had some change in work with their current employer/business. This survey is a major source of data for analysing the dynamic nature of the labour force. For more information on the content and methodology of this survey, refer to Chapter 21.17.

OTHER DATA SOURCES

10.12 Other sources of labour statistics related to labour market dynamics that are discussed in other chapters are outlined below. For more information on these statistics please refer to the chapter's referenced.

- Labour Force Survey (Chapter 20) - gross flows data provide information on movements between labour force states including movements between employment and unemployment;
- The supplement to the Labour Force Survey, the Labour Force Experience Survey (Chapter 21.5) - data relevant to labour market dynamics include information on time spent working, looking for work, and neither working nor looking for work;
- The supplement to the Labour Force Survey that focuses on unemployment, the Job Search Experience Survey (Chapter 21.17) - data relevant to labour market dynamics include the job search experiences of the unemployed and recent job starters.
- Survey of Employment and Unemployment Patterns (Chapter 24) - data relevant to labour market dynamics include information on labour force activities undertaken over a three year period, including information on periods of work, looking for work and absences from the labour force.

SUPERANNUATION

10.13 Detailed information on superannuation provision and income is collected in the Special Social Survey, the Survey of Employment Arrangements, Retirement and Superannuation. Information on employers' contributions to superannuation funds on behalf of their employees is also collected in the ABS business survey, the Survey of Major Labour Costs.

SURVEY OF EMPLOYMENT ARRANGEMENTS RETIREMENT AND SUPERANNUATION

10.14 Information collected includes: details of the type of superannuation coverage people have; the levels of contributions; reasons for not contributing to superannuation; superannuation account balances; and the amounts of and uses of lump sums received from superannuation. The following definitions apply to this survey:

- Superannuation account - an individual's holdings in a superannuation fund.
- Superannuation fund (also known as a superannuation scheme or superannuation plan) - any fund, association or organisation set up for the purpose of providing benefits for members on their retirement, or in other specified circumstances.
- Superannuation coverage - a set of categories describing the types of contributions being made to superannuation (for those who are working or who intend to work in the future, i.e. pre-retirement) or whether any benefit has been received from superannuation (for those who are not working and do not intend to work in the future, i.e. who are retired). The categories used are:
 - Working or intending to work in the future
 - Personal or spouse contributions only
 - Personal or spouse and employer or business contributions
 - Employer or business contributions only
 - Has superannuation, but no contributions being made
 - Has no superannuation
 - Not working and not intending to work in the future
 - Not receiving income from superannuation or annuities and no lump sum received
 - Receiving income from superannuation or annuities or has received a lump sum

10.15 For more information on the content and methodology of this survey, refer to Chapter 23.

SURVEY OF MAJOR LABOUR COSTS

10.16 The Survey of Major Labour Costs collects information on employers' superannuation contributions as a component of total labour costs. Information collected relates only to employer-funded contributions; contributions by employees are excluded. Readers should note that due to the different funding arrangements adopted in the public and private sectors, estimates of superannuation are not directly comparable between the sectors - see Chapter 12 for further information. For more information on the content and methodology of this survey, refer to Chapter 28.

FURTHER INFORMATION

10.17 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

CHAPTER 11. JOB VACANCIES

INTRODUCTION

11.1 This chapter discusses the concepts, definitions and sources of job vacancies data. Job vacancies are an indicator of unmet labour demand and complement indicators of underutilised labour supply such as unemployment (Chapter 6) and underemployment (Chapter 5). Job Vacancy data are used by Commonwealth and State government departments, employer associations and trade unions as a leading economic indicator and econometric forecasting.

CONCEPTS AND DEFINITIONS

11.2 There are currently no international recommendations or guidelines relating to job vacancies statistics. It is, however, fairly simple to develop a definition of a 'vacant post' which parallels the definition of an 'unemployed person' on the supply side of the labour market (footnote 1). The concept of vacant post was discussed in the general report to the Fifteenth International Conference of Labour Statisticians 1993 where the following definition was put forward: "a 'vacant post' can be said to exist if an employer before or during the reference period has taken concrete steps to find a suitable person to carry out a specific set of tasks and would have taken on (entered into a job contract with) such a person if she/he had been available during the reference period."

11.3 Job vacancies statistics are collected in the ABS Job Vacancies Survey (JVS) (see Chapter 27). ABS defines job vacancies in the JVS as employee jobs available for immediate filling on the actual survey reference day and for which employers have undertaken recruitment action. Recruitment action includes efforts to fill vacancies by advertising, by factory notices, by notifying public or private employment agencies or trade unions and by contacting, interviewing or selecting applicants already registered with the business or organisation.

11.4 Measures of job vacancies exclude:

- jobs not available for immediate filling on the reference day;
- jobs for which no recruitment action has been taken;
- jobs which became vacant on the survey reference day and were filled on the same day;
- jobs of less than one day's duration;
- jobs only available to be filled by internal applicants within an organisation;
- jobs to be filled by employees returning from paid or unpaid leave, or after industrial disputes;
- vacancies for work to be carried out by contractors;
- jobs for which a person has been appointed but has not yet commenced duty.

DATA SOURCES

11.5 Data on job vacancies are available from the ABS, while data on the number of job advertisements are available from a number of other sources including the private sector. Job vacancies should not be confused with job advertisements. Job vacancies data may differ from data on the number of job advertisements for a number of reasons, including the multiple advertising of a single vacancy.

11.6 Estimates of job vacancies and job advertisements are available from:

- the ABS Job Vacancies Survey;
- the Australian and New Zealand Banking Group (ANZ) Job Advertisement Series;
- the SEEK Employment Index Report, which includes the New Job Ads Index; and
- the Department of Employment Vacancy Report.

ABS JOB VACANCIES SURVEY

11.7 Estimates from this survey are produced according to the definitions outlined above. For more information on the data content and methodology of this survey refer to (Chapter 27).

ANZ SERIES

11.8 The ANZ produces two series, one based on counts of newspaper advertisements placed in major metropolitan newspapers, the other on counts of internet advertisements on selected employment internet sites. Readers should refer to the ANZ Job Advertisement Series for more detail on the content and methodology of these series.

11.9 Counts of job advertisements can differ from counts of job vacancies for several reasons, including the multiple advertising of a job.

SEEK NEW JOB ADS INDEX

11.10 SEEK produces a monthly New Job Ads Index which measures the number of new job ads posted on their website in a particular month. The series is adjusted to ensure that multiple postings count as one ad. The index is available in both original and seasonally adjusted terms. Readers should refer to the SEEK Employment Index report for more detail on the content and methodology of these series.

DEPARTMENT OF EMPLOYMENT VACANCY REPORT

11.11 The Department of Employment produces four series:

- the Internet Vacancy Index (IVI) based on a count of newly lodged online vacancies on selected employment internet sites (from secondary sources);
- the Skilled IVI based on counts of internet advertisements for skilled vacancies (the aggregation of Australian and New Zealand Standard Classification of Occupations (ANZSCO) categories Professionals, and Technicians and Trade Workers);
- the Regional IVI, which provides indices for more detailed geographic areas.
- the Occupational IVI, which provides indices for occupations based on the Australian and New Zealand Standard Classification of

The The Department of Employment IVIs code internet advertisements to occupation at the ANZSCO four digit level for Australia. Readers should refer to the The Department of Employment Vacancy Report for more detail on the content and methodology of these series.

FURTHER INFORMATION

11.13 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 12. Employee Remuneration

Chapter 12. EMPLOYEE REMUNERATION

INTRODUCTION

12.1 Statistics of employee remuneration are required for the planning, evaluation and monitoring of economic and social development. Demand for the statistics comes from Federal and State Governments, social and labour market analysts, industrial tribunals, trade unions, employer associations, academics and international agencies.

12.2 Comprehensive statistics on remuneration, classified by sex, occupation, skill, industry etc., are in demand because of the role they play in the evaluation of social welfare, taxation, monetary, wage fixation, inflation and prices policies; investment decisions; studies of corporate and international competitiveness; and measurement of living standards.

12.3 In recognition of the variety of needs for data in this area, the 12th International Conference of Labour Statisticians (ICLS) in 1973 recommended that countries collect a range of interrelated wages statistics to meet users' differing needs.

12.4 The ABS produces a range of statistics relating to the remuneration of employees in return for work done. These statistics have been developed to meet the various needs of users for information on the returns to labour from economic production, the contribution of employee income to total household income, and the level and distribution of weekly earnings.

12.5 The remuneration paid to employees for their work is of interest from both social and economic perspectives - in terms of the income received by employees and the cost of labour for employers. The measures produced include Compensation of Employees (CoE) in the quarterly national accounts, employee income in income distribution statistics, average weekly earnings series and the Labour Price Indexes.

12.6 The first section of this chapter outlines international concepts of labour costs, compensation of employees, earnings, and household (and employee) income. The rest of this chapter outlines the definitions associated with various ABS statistics of employee remuneration; measures and classifications associated with these statistics; and sources of Australian statistics, including non-ABS series.

CONCEPTS AND INTERNATIONAL GUIDELINES

12.7 International standards and guidelines provide the broad principles behind ABS statistics of employee remuneration, ensuring comparability with those of other countries that use the standards. However, the international standards are very general, and need to be interpreted in the context of each country's own situation.

12.8 This section outlines the international guidelines in the four main areas of interest, namely:

- costs incurred by employers as a consequence of employing labour;
- the compilation of the national accounting aggregate compensation of employees;
- the measurement of earnings received by employees in exchange for their labour; and
- the measurement of household and employee income.

LABOUR COSTS

12.9 The statistical measure of labour costs is based on the concept of labour as a cost to the employer in the employment of labour, and relates to: all cash and in-kind payments of wage and salaries to employees; all contributions by employers in respect of their employees to social security, private pension, casualty insurance, life insurance and similar schemes; and all other costs borne by employers in the employment of labour that are not related to employee compensation (such as costs of training, welfare services to employees, payroll taxes etc). Measures of labour costs should be net of any subsidies, rebates or allowances from governments for wage and salary payments to employees, or for other labour costs borne by employers.

12.10 The definition of labour costs from the 1973 ICLS is:

...remuneration for work performed, payments in respect of time paid for but not worked, bonuses and gratuities, the cost of food, drink and other payments in kind, cost of workers' housing borne by employers, employers' social security expenditures, cost to the employer for vocational training, welfare services and miscellaneous items, such as transport of workers, work clothes and recruitment together with taxes...

COMPENSATION OF EMPLOYEES

12.11 The system of national accounts provides the statistical framework for summarising and analysing economic flows, such as economic production, the income generated by production, the distribution of income among the factors of production, and the use of income through

consumption or the acquisition of assets.

12.12 The System of National Accounts, 1993 (SNA93), produced jointly by the United Nations, International Monetary Fund, World Bank, Commission of the European Communities and the Organisation for Economic Co-operation and Development, has been adopted by the ABS as the conceptual basis for compiling the Australian System of National Accounts (ASNA) (cat. no. 5204.0).

12.13 National accounts statistics are measured at the aggregated macro-economic level and are compiled as aggregations of transactions that occur between units in the various institutional sectors (such as the household sector and the government sector). Although compiled at a macro-economic level, the structure and definitions of the national accounts can also be related to the micro-data collected in household surveys and other data collections.

Compensation of employees concept as applied in international guidelines

12.14 The national accounting aggregate that is of main interest in relation to remuneration of employees is Compensation of Employees (CoE), which measures income earned by employees from their employers for services rendered. CoE is defined in SNA93 as:

...the total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the latter during the accounting period.

12.15 SNA93 partitions CoE into three main components: wages and salaries in cash, wages and salaries in kind, and employers' social contributions. SNA93 also notes that:

Wages and salaries include the values of any social contributions, income taxes, etc., payable by the employee even if they are actually withheld by the employer for administrative convenience or other reasons and paid directly to social insurance schemes, tax authorities, etc., on behalf of the employee. Wages and salaries may also be paid in various ways, including goods or services provided to employees as remuneration in kind instead of, or in addition to, remuneration in cash.

Wages and salaries in cash

12.16 Wages and salaries in cash include wages and salaries paid at regular intervals, together with payments by measured result and piecework payments, allowances for working overtime, for working away from home and similar taxable allowances, pay for annual and other leave for short periods, ad-hoc bonuses and commissions, gratuities and tips received by employees.

Wages and salaries in kind

12.17 Employees can also be remunerated in wages and salaries in kind, such as goods or services. The provision of goods and services as part of remuneration may reflect taxation advantages for the employer or employee by avoiding payments in cash, or arrangements where the employer provides free or subsidised accommodation, travel, food, motor vehicles and other goods and services for the private use of employees.

12.18 In terms of valuing the in-kind payments, SNA93 recommends that:

When the goods or services have been purchased by the employer, they should be valued at purchasers' prices. When produced by the employer, they should be valued at producers' prices. When provided free, the value of the wages and salaries in kind is given by the full value of the goods and services in question. When provided at reduced prices, the value of the wages and salaries in kind is given by the difference between the full value of the goods and services and the amount paid by the employee.

Employers' social contributions

12.19 Employers' social contributions are incurred by employers in order to secure social benefits for their employees. Entitlements to social benefits are generally dependent on certain events or circumstances occurring, such as sickness, accidents, redundancy or retirement. In theory, the contributions are made well in advance of the benefits being paid; for example, there is a time difference between the payment of contributions to a superannuation fund and the receipt of superannuation benefits by retired employees. In the national accounts, the contributions are treated as part of remuneration, while the benefits are treated as part of households' secondary income. The treatment is largely analogous to the payment of premiums and the receipt of claims with respect to insurance transactions.

Compensation of employees concept as applied in Australia

12.20 In the ASNA, the same basic framework as presented in SNA93 is used. However, for measurement reasons, there are differences between the conceptual ideal presented above and the actual estimates compiled within the ASNA. The differences relate to severance, termination and redundancy payments (STRP), sick leave and other leave payments (except annual and long service leave payments); and changes in provisions for future employee entitlements.

12.21 STRP, sick leave and other leave are types of social benefit payments. There is no separately modelled estimate of the contributions required to provide the benefits, with the actual benefit payments in any period used to estimate the contributions. It is this amount that is included in CoE. Although some information has been collected in the past to separately identify STRP from other wages and salaries, currently no information is available to consistently differentiate between all of these types of payments and other wages and salary payments. Consequently, the imputed contributions that relate to these benefits are included in wages and salaries in cash rather than in employers' social contributions.

12.22 Under full accrual accounting the estimate of the remuneration of employees would be based on the change in the level of outstanding entitlements to remuneration, most particularly with respect to annual, sick and long service leave. While the ASNA would ideally use information on a full accruals basis, a reasonably large proportion of the data collected with respect to wages and salaries is on a cash basis and hence the ASNA does not fully account for the changes in provisions as required by the international standards.

Treatment of shares and share options

12.23 Conceptually, shares, securities and share options are components of wages and salaries where they form part of the compensation

for labour services provided in the accounting period. These benefits may be included in severance or termination payments. However, employee share schemes (including shares, share rights or options) are not discussed explicitly in the international statistical standards. In the Australian System of National Accounts (cat. no. 5204.0), they have not been recorded as a business expense and, hence, have been implicitly included within the operating surplus of business. In commercial accounting, a similar treatment has existed.

12.24 Recent discussion has led to changes in the international and Australian business accounting standards, such that employee share scheme expenses are to be considered as part of remuneration, thereby reducing operating profit. In parallel, the treatment of these schemes has been reconsidered within international statistical circles and it is likely that, in the forthcoming revised version of the international standards for national accounts, the market value of the share-based compensation will be recorded as compensation of employees, with a corresponding reduction in gross operating surplus. The level of Gross Domestic Product (GDP) will be unaffected by the change.

12.25 The value of employee compensation will be estimated as at the vesting date, which is the date at which the employee becomes entitled to receive shares or exercise an option to buy shares. However, in view of the fact that the entitlement is usually earned progressively over a longer period, the value will be spread over the period from the original grant date to the vesting date. Any change in value between the vesting date and the date of actual exercise of options will not be treated as employee compensation but as a capital gain or loss.

EARNINGS

12.26 The integrated system of wages statistics, developed by the International Labour Organization (ILO) as a result of the 12th ICLS in 1973, sets out the international standards for the concepts, definitions and classifications used in the collection and compilation of statistics of wage rates, earnings and labour costs. More recent international statistical standards, including SNA93 and the 2003 ICLS resolution on household income statistics, have remained consistent, as far as possible, with the ILO's integrated system of wages statistics.

12.27 The system of wages statistics is designed to meet the needs for information on the levels and movements in average earnings, and on distribution of earnings and hours for different employee types.

Earnings concept as applied in international guidelines

12.28 The statistical measure from the integrated system of wages statistics of main interest in measuring remuneration of employees is 'Earnings'. Earnings statistics are based on the concept of wages and salaries as income to the employee. The concept broadly aligns with the wages and salaries component of CoE in SNA93. However, whereas the national accounts measures wages and salaries as an economic flow over an annual or quarterly period, earnings statistics are generally a series of 'point-in-time' measures of the average earnings of employees in a short reference period. As a result, the definition of earnings is slightly narrower than the national accounts definition of wages and salaries. It refers to remuneration paid 'as a rule at regular intervals', to differentiate between earnings that can be expected to be received regularly (e.g. annually, quarterly or fortnightly) and one-off payments.

12.29 The 1973 ICLS guidelines for wages statistics define 'Earnings' as:

...remuneration in cash and in kind paid to employees, as a rule at regular intervals, for time worked or work done together with remuneration for time not worked such as for annual vacation, other paid leave or holidays. Earnings exclude employers' contributions in respect of their employees paid to social security and pension schemes and also the benefits received by employees under these schemes. Earnings also exclude severance and termination pay.

Statistics of earnings should relate to employees' gross remuneration, i.e. the total before any deductions are made by the employer in respect of taxes, contributions of employees to social security and pension schemes, life insurance premiums, union dues and other obligations of employees.

12.30 The ICLS guidelines state that the value of wages and salaries in kind should be the value directly accruing to the employee (rather than the cost to the employer). In other words, the value should reflect what it would cost the employee to purchase the goods or services themselves. As individuals are generally only able to purchase goods and services at retail prices, it is appropriate to value wages and salaries in kind at retail prices. However, the guidelines also note that, for employer based surveys, the valuation of wages and salaries in kind depends on whether the employer is supplying its own product (in which case producer prices should be used) or acquiring goods or services to be passed to the employee (in which case purchaser prices should be used).

Earnings concept as applied in Australia

12.31 Notionally, the earnings concept used in Australia is consistent with the international concept, although, in operationalising the concept in surveys of employers, measures of earnings generally excluded wages and salaries in kind prior to 2006, largely due to practical considerations. Information on the value of benefits provided by the employer has not always been readily available from employer payrolls, and the contribution of wages and salaries in kind to total employee earnings was relatively insignificant when most of the relevant surveys were first established.

12.32 However, as a result of changes in the nature of employee remuneration arrangements in recent years, in particular the increasing use of salary sacrifice arrangements, the ABS reviewed the conceptual basis of remuneration statistics, completing the review in late 2006. The key change to the conceptual basis following on from this review is that the value of goods and services obtained through salary sacrifice arrangements, i.e. where the employee has chosen to forgo wages and salaries in cash in order to receive the goods or services, are now included conceptually in wages and salaries in cash. Wages and salaries in kind will continue to be excluded from earnings measures. For further information, see Information Paper: Changes to ABS Measures of Employee Remuneration (cat. no. 6313.0).

HOUSEHOLD INCOME

12.33 Statistics on household income at the aggregated macro-economic level are available within the system of national accounts. Total gross household sector income is the income accruing to the household sector from production (principally CoE, which is of main interest in analysing remuneration issues) and from property income (such as interest and dividends), together with current transfers from other sectors.

12.34 In addition to forming sector level aggregates, statistics on household income can be compiled from the perspective of measuring the

economic well-being of individuals and households, in terms of the distribution of income across households and individuals for various population subgroups of interest.

Household income concept as applied in international guidelines

12.35 International guidelines for the measurement of household income were revised in 2003 at the 17th International Conference of Labour Statisticians (ICLS), an expert group convened by the International Labour Organization (ILO). The guidelines have been developed for the purposes of measuring income distribution on a comparable basis internationally, and for the collection and dissemination of household income statistics at aggregate and micro-data levels that are consistent, to the extent possible, with other international guidelines, including SNA93.

12.36 In the ICLS guidelines the concept of household income consists of all receipts, whether monetary or in kind (goods and services) that are received by the household or by individual members at annual or more frequent intervals, but excludes windfall gains and other such irregular and typically one-time receipts. Household income receipts are available for current consumption and do not reduce the net worth of the household through a reduction of its cash, the disposal of its other financial or non-financial assets or an increase in its liabilities.

12.37 The 2003 ICLS guidelines include definitions for the components of household income. The component 'Employee income' is defined to be broadly comparable with the definition of CoE in SNA93.

Employee income concept

12.38 The ICLS guidelines for household income statistics define the 'Employee income' component as comprising:

...direct wages and salaries for time worked and work done, cash bonuses and gratuities, commissions and tips, directors' fees, profit-sharing bonuses and other forms of profit-related pay, remuneration for time not worked as well as free or subsidised goods and services from an employer. It may include severance and termination pay as well as employers' social contributions.

12.39 The flexibility in the ICLS definition of employee income regarding both severance and termination pay and employers' social contributions can give rise to two situations where employee income will not be consistent with the SNA93 definition of CoE. First, CoE includes employers' social contributions, so if the option to exclude them from employee income is exercised then a difference arises between the two measures. Second, provision for severance and termination pay is classified in SNA93 as part of employers' social contributions, and SNA93 provides practical advice that these provisions can be approximated by the actual payments occurring in a reference period. Exercising the option to include the actual severance and termination payments in employee income, when the provision for them is not included as part of employers' social contributions within employee income, will reduce the difference between employee income and CoE.

12.40 The ICLS guidelines value employee income in kind at relevant market prices (producer or basic prices) for equivalent goods and services, in line with SNA93 recommendations. Market prices include transport costs, taxes and subsidies. Where the employee income in kind consists of the outputs of the employer's production processes, and are 'imposed payments in-kind' with little or no market value, a zero value is applied in computing employee income.

Employee income concept as applied in Australia

12.41 In the dissemination of household income statistics ABS defines the employee component of income to include:

...regular and recurring cash receipts.....from wages and salaries.

12.42 The severance and termination payments and other employers' social contributions, which are part of CoE in the ASNA, are excluded from Australian household income statistics. In addition, the concept of employee income differs from the ASNA concept of the wages and salary component of CoE by excluding:

...income in kind including employee benefits such as the provision of a house or a car.

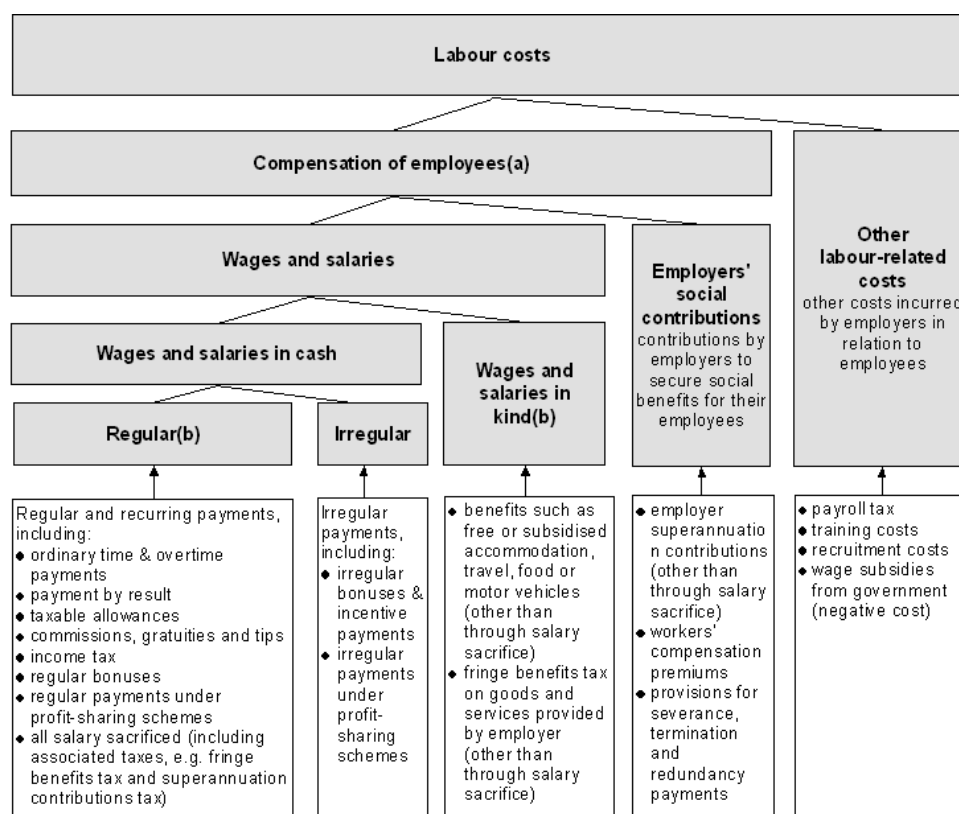
12.43 Restricting measurement of employee income to regular and recurring wages and salaries in a 'current income' concept was intended to provide a measure of the income that was currently available to the household to support their living standards and the income that was likely to be available in the near future. That is, in looking at weekly income at the household level, a one-off payment received during the survey reference period was not included in measures of household income as it was not ongoing income.

12.44 The exclusion of income in kind was largely an historical issue arising from the impracticality of reliable reporting by householders for the value of income in kind, and reflected an expectation that the amounts would not be so significant as to affect distributional analysis at the household level. Changes in aggregate household income, inclusive of such in-kind income over time, would be reflected in the national accounts concept.

EMPLOYEE REMUNERATION CONCEPTUAL FRAMEWORK

12.45 Figure 12.1 below summarises the conceptual framework for statistical measures of employee remuneration in Australia (in the context of the broader concept of labour costs). The narrowest concept outlined in the international guidelines is that of 'Earnings'. Concepts of 'Wages and salaries', 'Employee income', 'Compensation of Employees' and 'Labour costs' all include and extend upon the concept of 'Earnings'.

12.1 AUSTRALIAN CONCEPTUAL FRAMEWORK FOR MEASURES OF EMPLOYEE REMUNERATION



(a) The concept 'employee income' is broadly comparable with compensation of employees.

(b) Conceptually, earnings comprise regular wages and salaries in cash and regular wages and salaries in kind.

DEFINITIONS, MEASURES AND ABS DATA SOURCES

EARNINGS

12.46 Estimates of earnings are produced from a number of ABS surveys and include measures of average weekly earnings, earnings distributions and earnings composition. The definition of earnings, and the measures produced, varies between surveys as discussed below.

12.47 The key ABS collections producing earnings statistics are:

- the six-monthly Survey of Average Weekly Earnings (AWE) (cat. no. 6302.0);
- the two-yearly Survey of Employee Earnings and Hours (EEH) (cat. no. 6306.0); and
- the annual Survey of Employee Earnings, Benefits and Trade Union Membership (EEBTUM) (cat. no. 6310.0).

12.48 In the first two surveys (which are employer based), the measure of earnings relates to a short reference period (e.g. a pay period), and is restricted to cash wages and salaries that are received regularly and frequently. The measure of earnings includes, for practical reasons, employer payments for sick leave (conceptually part of employers' social contributions in SNA93).

12.49 The measure of earnings used in the EEBTUM survey (which is a household survey) relates to the most recent pay, that is, the last total pay before tax or any other deductions. It also includes irregular and infrequent payments and payments related to other periods. This is for practical reasons only.

12.50 Estimates of earnings are also produced from the Survey of Employment and Earnings (SEE) and Survey of Major Labour Costs (MLC), however, these surveys use a broader definition which is not compatible with the above earnings surveys.

Survey of Average Weekly Earnings

12.51 The Survey of Average Weekly Earnings (AWE) measures regular wages and salaries in cash associated with employee jobs. Estimates of average weekly earnings, and changes in average weekly earnings are published twice yearly (in respect of the May and November quarters). The definition used in the AWE survey aligns closely with the international definition of earnings.

12.52 The earnings measure collected in the AWE survey is limited to:

- remuneration for time worked or work done - ordinary time and overtime pay, penalty payments, commissions (where a retainer, wage/salary is also paid), taxable allowances (e.g. shift, site, dirt, height allowances), incentive and piecework payments, directors salaries;
- remuneration for time not worked - including paid leave and public holidays, and workers compensation payments paid through the payroll;
- bonuses and gratuities - includes regular and frequent bonuses only (e.g. weekly, fortnightly or quarterly), and regular payments made under profit sharing schemes.

12.53 The following components of remuneration are excluded from AWE earnings measures:

- wages and salaries in kind;
- amounts salary sacrificed; and

- all other payments that are irregular or are not related to the survey reference period - including retrospective pay and pay in advance, STRP, leave loadings; and half-yearly, annual or irregular bonuses.

12.54 In addition, estimates which are inclusive of salary sacrifice are now compiled from the AWE survey. The Average Weekly Cash Earnings (AWCE) series are available in respect of the May 2010 quarter onwards. The new AWCE series complement (rather than replace) the existing series by providing estimates of average weekly earnings which include salary sacrificed earnings.

12.55 Estimates of average weekly earnings are derived by dividing estimates of gross weekly earnings by estimates of the number of employee jobs. These measures do not relate to the earnings of the 'average employee'.

12.56 Changes in the average may be affected not only by changes in the underlying rates of pay, but also by changes in the weekly hours worked (or paid for) and by changes in the composition of jobs in the workforce. Compositional changes can be the result of variations in the proportion of full-time, part-time, casual, adult and junior employees, variations in the occupational distribution within and across industries, variations in the distribution of employees between industries, and variations in the proportion of male and female employees.

12.57 The AWE survey produces a range of estimates of average weekly earnings paid per employee job. The following estimates are produced: average weekly ordinary time earnings for full-time adults; average weekly total earnings for full-time adults; and average weekly total earnings for all employee jobs (i.e. whether full-time or part-time, or whether paid at adult or junior rates). These estimates can be classified by sex, sector, industry and state/territory. For more detail on the content and methodology of the Survey of Average Weekly Earnings, see Chapter 29.

Survey of Employee Earnings and Hours

12.58 The two-yearly Survey of Employee Earnings and Hours (EEH) measures regular wages and salaries in cash associated with employee jobs. The EEH survey produces estimates of earnings distributions and average weekly earnings classifiable by sex, adult/junior status, managerial/non-managerial status, full-time/part-time status, hours paid for, components of pay, occupation, industry, sector, level of government, state/territory, and method of setting pay.

12.59 From the 2006 EEH survey onwards, earnings measures include amounts salary sacrificed.

12.60 The components of earnings available from the EEH survey are ordinary time earnings and overtime earnings. Ordinary time earnings relates to payment for award, standard or agreed hours of work, including allowances, penalty payments, payment by measured result, regular and frequent bonuses and commissions (where a retainer/wage/salary is also paid). Overtime earnings relates to payment for hours in excess of award, standard or agreed hours of work.

12.61 The EEH survey also produces estimates of average hourly total earnings for non-managerial employees, classified by male/female, permanent/fixed-term contract/casual, state/territory, and method of setting pay. These estimates are derived by dividing estimates of gross weekly earnings by estimates of total weekly hours paid for. For more detail on the content and methodology of the Survey of Employee Earnings and Hours, see Chapter 30.

Survey of Employee Earnings, Benefits and Trade Union Membership

12.62 Earnings measures used in the annual Employee Earnings, Benefits and Trade Union Membership (EEBTUM) household survey relate to gross payments received from either the main job or all jobs during the reference period. No adjustments are made to exclude components of pay that are outside the international earnings definition, such as irregular bonuses, and components of pay that do not relate to the reference period (such as retrospective pay and pay in advance). Earnings measures produced from EEBTUM are restricted to cash earnings, i.e. they exclude wages and salaries in kind. From the August 2007 survey onwards, earnings measures from EEBTUM include amounts salary sacrificed.

12.63 The EEBTUM survey produces estimates of mean and median weekly earnings per employee. Estimates of mean weekly earnings of employees are derived by dividing estimates of gross weekly earnings by estimates of the number of employees. Mean weekly earnings represents the average gross (before tax) earnings of employees. Median weekly earnings is defined as the earnings amount which divides the earnings distribution into two groups with equal numbers of employees, one half having weekly earnings below the median and the other half having weekly earnings above the median.

12.64 Separate estimates are produced for earnings in main, second and all jobs held by employees; and earnings distributions. Estimates are produced for both main job and all jobs, classifiable by a range of socio-demographic and economic variables including age, birthplace, sex, relationship in household, state/territory of usual residence, industry, occupation, sector, full-time/part-time status and hours worked. For more detail on the content and methodology of the EEBTUM survey, see Chapter 21.2.

Survey of Employment and Earnings and Survey of Major Labour Costs

12.65 Earnings statistics are also produced from the Survey of Employment and Earnings (SEE) and Survey of Major Labour Costs (MLC). However, unlike the AWE, EEH and EEBTUM surveys, the SEE and MLC surveys are not designed to produce estimates of the concept of earnings per se, but estimates which align with the broader concepts of wages and salaries, compensation of employees or labour costs. As such, SEE and MLC define earnings more broadly than in the AWE and EEH surveys, and estimates are not comparable across surveys.

12.66 The definition used in SEE and MLC extends upon the definition of earnings by also including irregular payments (such as irregular bonuses) and other payments which may not relate to the reference period (such as pay in advance, retrospective pay). MLC also includes STRPs; and all fees paid to directors and office holders. However, separate estimates of STRPs are available from SEE.

12.67 Estimates from SEE and MLC are primarily used in the production of estimates of compensation of employees within the Australian National Accounts. Unlike the AWE and EEH surveys, which are designed to estimate average earnings levels at a point in time, the SEE and MLC surveys are designed to estimate earnings flows to employees over a financial year. For further information on the content and methodology of MLC refer to Chapter 28, and for SEE, refer to Chapter 31.

COMPENSATION OF EMPLOYEES

12.68 The remuneration earned by employees for labour services rendered is measured in the Australian National Accounts aggregate, CoE. The CoE measure comprises wages and salaries in cash or in kind, and the value of employer's social contributions for their employees.

12.69 The key sources used in compiling estimates of CoE are:

- the Economic Activity Survey (EAS);
- the Quarterly Business Indicators Surveys (QBIS); and
- the Survey of Employment and Earnings (SEE).

12.70 Data from the infrequent Survey of Major Labour Costs are also used to provide benchmark information. A more detailed description of the concepts, sources and methods used to compile the national accounts is presented in Australian System of National Accounts: Concepts, Sources and Methods (cat. no. 5216.0).

12.71 Estimates of compensation of employees are contained within the Income Accounts of the Australian National Accounts, which are published in Australian System of National Accounts (cat. no. 5204.0), and Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0).

LABOUR COSTS

12.72 Estimates of labour costs are produced from the Survey of Major Labour Costs (MLC) and the Business Operations and Industry Performance Series.

12.73 Estimates of the underlying changes in the price of labour (indexes of changes in hourly labour costs for employee jobs) are produced from the Labour Price Index.

Survey of Major Labour Costs

12.74 The measure of labour costs available from the MLC survey relates to the main costs incurred by employers as a consequence of employing labour. The labour cost components collected in the MLC survey are:

- Employee earnings;
- Superannuation;
- Payroll tax;
- Workers' compensation; and
- Fringe Benefits Tax.

12.75 A number of labour costs are not collected in the MLC survey. These include: training costs; costs associated with employee welfare services; and recruitment costs. With the exception of training costs, these items are not considered to make a significant contribution to total labour costs. Training costs were collected in the ABS Training Expenditure and Practices Survey, conducted for financial year 2001-02, and in the earlier Training Expenditure Survey conducted for September quarters of 1989, 1990, 1993 and 1996. Costs covered in these surveys are for structured training provided by employers. For information see Employer Training Expenditure and Practices, Australia (cat. no. 6362.0).

12.76 All data are collected on a cash basis i.e. they reflect actual payments made in the survey reference period. As such they do not reflect costs incurred in the reference period for which payments are made in a later period, but they include payments made in the survey reference period for costs incurred in a prior period. The survey has a 12 month (financial year) reference period and is conducted on an infrequent basis (every 5-6 years).

12.77 Estimates of total labour costs and costs per employee job can be cross classified by state/territory, industry, sector, level of government and employer size. For more detail on the content and methodology of this survey see Chapter 28.

Earnings

12.78 As discussed above, the definition of earnings used in the Survey of Major Labour Costs is broader than that used in the AWE, EEH and EEBTUM surveys (see paragraphs 12.65 to 12.67).

Superannuation

12.79 For the MLC Survey, superannuation costs are the total employer superannuation contributions paid during the year on behalf of employees. It excludes the value of salary sacrificed by employees in exchange for superannuation contributions. During 2002-03, legislation underlying the Superannuation Guarantee Charge (SGC) required that employers provide superannuation contributions of at least 9% of gross wages and salaries for all eligible employees. Although employers may treat the value of salary sacrificed by employees to superannuation as employer contributions under SGC obligations, in this survey such contributions are treated as earnings, and not as superannuation costs. Occasionally, surplus funds of some defined benefit superannuation schemes are used to offset the superannuation cost incurred by contributing employers in a particular time period.

Payroll tax

12.80 Payroll tax is defined as the amount of tax paid during the survey reference year in respect of employee earnings, net of any rebates. Payroll tax assessed for payments to contractors and other persons not considered employees is excluded.

Workers' compensation

12.81 The cost to the employer in providing workers' compensation cover for employees. There are three ways to meet these costs. The majority of employers pay a premium to an insurer. In this case, workers' compensation costs are considered to comprise premiums paid during the reference year including the component that covers the employee for common law damages, and any workers' compensation costs not reimbursed by the insurer, including 'make-up' and 'excess' pay.

12.82 Some larger employers may become 'self-insurers' and cover most costs themselves. In this case, workers' compensation costs are considered to comprise lump sum payments and payments made as part of employee earnings, premiums paid during the year to offset liability at common law for workers' compensation, and any other costs, including common law costs not reimbursed by the insurer, such as legal, accounting, medical and administrative costs.

12.83 In the public sector, some workers' compensation costs are paid from consolidated funds. In most cases these payments relate to liabilities incurred under prior legislation.

Fringe Benefits Tax

12.84 Fringe benefits are remuneration provided to employees in the form of benefits such as goods or services - for example, use of a work car, a cheap loan, or health insurance costs. These may be provided through salary sacrifice arrangements, as part of salary packages, or through other arrangements. Fringe benefits tax (FBT) is payable on the value of benefits provided, although exemptions apply to some categories of employers (e.g. certain not-for-profit organisations) and certain benefits (e.g. laptop computers).

Australian Industry

12.85 Estimates of labour costs from the Australian Industry series are derived using a combination of data from the annual ABS Economic Activity Survey (EAS) and business income tax data provided by the Australian Taxation Office. This series defines labour costs more narrowly than the MLC survey. Labour costs are restricted to: wages and salaries paid to employees; employer contributions to superannuation; and workers' compensation. Severance, termination, and redundancy payments are included in wages and salaries. For further information on data content and collection methodology of this series, see Australian Industry (cat. no. 8155.0).

Wage Price Index

12.86 The quarterly Wage Price Index (WPI) measures the quarterly changes in the price employers pay for labour due to market factors. The WPI is unaffected by changes in the quality or quantity of work performed, that is, it is unaffected by changes in the composition of the labour force, hours worked, or changes in characteristics of employees (e.g. work performance).

12.87 Wage Price Indexes (WPIs) were first produced by the ABS in the December quarter 1997. In the September quarter 2004, the inclusion of non-wage indexes complimented the existing suite of WPIs and were combined to create Labour Price Indexes (LPIs). In March 2012 ABS program reductions led to the non-wage and LPI indexes being discontinued, with the September quarter 2011 representing the last in the series.

12.88 The ABS constructs four wage price indexes on a quarterly basis:

- ordinary time hourly rates of pay excluding bonuses;
- ordinary time hourly rates of pay including bonuses;
- total hourly rates of pay excluding bonuses; and
- total hourly rates of pay including bonuses.

12.89 For further information, see Wage Price Index: Concepts, Sources and Methods (cat. no. 6351.0.55.001).

EMPLOYEE INCOME

12.90 Employee income is defined as "regular and recurring cash receipts from wages and salaries". Employee income includes: wages and salaries; tips, commissions and regular bonuses; other profit-sharing bonuses; piecework payments; payment for recurring odd jobs, casual work; penalty payments and shift allowances; directors' fees; remuneration for time not worked (e.g. holiday pay, sick pay, pay for public and other holidays and other paid leave); worker's compensation paid by the employer; and leave loadings.

12.91 Employee income excludes severance or termination pay, allowances paid by an employer purely to cover the cost of work-related expenses, and pension payments from unfunded schemes paid to former employees.

12.92 Measures of employee income are available from a number of ABS household collections including:

- the Survey of Income and Housing;
- the Household Expenditure Survey; and
- the Census of Population and Housing.

Survey of Income and Housing

12.93 The Survey of Income and Housing is a two-yearly survey that collects detailed information on employee income. For detail on the content and methodology of the survey, see Household Income and Income Distribution, Australia (cat. no. 6523.0).

Household Expenditure Survey

12.94 The Household Expenditure Survey also collects detailed information on employee income. Some information is collected on income in kind (namely consumable goods provided by employers). For more detail on the content and methodology of the survey, see Household Expenditure Survey, Australia: Summary of Results (cat. no. 6530.0).

Census of Population and Housing

12.95 The Census of Population and Housing collects information on total income levels (ranges) only. Estimates cannot be classified according to type of income. For more detail on the content and methodology of the Census refer to Chapter 20.

OTHER NON-ABS DATA SOURCES

Household Income and Labour Dynamics Australia

12.96 The Household Income and Labour Dynamics Australia (HILDA) survey is a household-based panel study which began in 2001. HILDA collects information about economic and subjective well-being, labour market dynamics and family dynamics. For further information, refer to the Household Income and Labour Dynamics Australia (HILDA) survey.

Trends in Federal Enterprise Bargaining

12.97 The Department of Education, Employment and Workplace Relations (DEEWR) produces measures of changes in wages rates in its quarterly Trends in Federal Enterprise Bargaining publication. Indexes of Average Annualised Wage Increases per employee are published for federally registered collective agreements. For further information, refer to Trends in Federal Enterprise Bargaining.

Melbourne Institute Wages Report

12.98 The Melbourne Institute of Applied Economic and Social Research (University of Melbourne) produces measures of change in wage rates for total and base pay (these measures are referred to as Pay Indicators) in its quarterly Melbourne Institute Wages Report. The sample is drawn from the Melbourne Institute's Consumer Sentiment Survey of Australian adult residents. Information is collected on percentage changes to total and base wage rates, over a 12 month period, from persons who have been employed in the same job for the preceding 12 months. The final sample used to construct the Pay Indicators averages around 400-450 persons. Changes in wage rates are weighted averages of responses provided to questions: "By what percentage has your base pay changed over the last 12 months?" and "By what percentage has your total pay changed over the last 12 months". For further information, refer to the Melbourne Institute Wages Report.

FURTHER INFORMATION

12.99 For further details please contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 13. Industrial Relations

CHAPTER 13. INDUSTRIAL RELATIONS

INTRODUCTION

13.1 Industrial relations can be regarded as the relationships and interactions in the labour market between employers and employees (and their representatives), and the intervention in these relations by governments, government agencies and tribunals (e.g. Fair Work Commission).

13.2 The field of industrial relations is complex and diverse and, for statistical purposes, is not easily measured. The ABS collects information on a number of topics to provide an insight into the state of the industrial relations environment. This chapter discusses statistics on: the different methods that are used to set pay of employees in Australia (such as award only, collective agreements and individual arrangements); trade union membership; and industrial disputes. Where they exist and are relevant, international guidelines relating to these statistics are also outlined. The chapter starts with a historical overview of industrial relations in Australia.

HISTORICAL OVERVIEW OF INDUSTRIAL RELATIONS IN AUSTRALIA

13.3 Historically, governments have regulated the Australian labour market to varying degrees. Changes to the structure or processes underpinning the industrial relations environment have generally followed changes in governments, and periods of social or economic change. For most of the last century, employee-employer relationships were shaped by highly centralised Commonwealth and state tribunal-based systems of conciliation and arbitration. However, since the late-1980s, the industrial relations environment in Australia has undergone significant change and is now characterised by more decentralised enterprise level arrangements.

13.4 Initially unions and employers opposed the establishment of a system of conciliation and arbitration. However, following a series of disastrous strikes in the 1890s, it was narrowly agreed at the Constitutional Conventions to include in the Australian Constitution powers of conciliation and arbitration for the prevention and settlement of industrial disputes that extended beyond the limits of any one State. The first legislation to put the Commonwealth's industrial power into effect was the Conciliation and Arbitration Act 1904, under which the Commonwealth Court of Conciliation and Arbitration (forerunner to the Australian Industrial Relations Commission) was established.

13.5 The Excise Tariff Act 1906, under which employers were granted tariff protection provided that a fair and reasonable wage was paid to their workers, proved attractive to both unions and employers. The first attempt to define a fair and reasonable wage was made in the Harvester case (1907). This case established the 'basic wage' and initiated an important principle of wage determination: that a fair and reasonable wage should be based on "the normal needs of the average employee, regarded as a human being living in a civilised community". The Harvester standard was used in making other awards; and the basic wage, with margin for skill, became the foundation wage rate.

13.6 The Federal system, with jurisdiction over matters extending beyond State borders, gradually became dominant over the individual State systems. By 1976 nearly 90% of the workforce had come under awards, of which nearly 40% came under Federal jurisdiction. By the mid 1980s there were over 9,000 separate awards with over 250,000 individual award classifications.

13.7 The nexus between tariff protection and the fair wage was weakened in 1973 when the then Labor government oversaw a reduction in overall tariff protection, in an attempt to open up the Australian economy to international competition.

13.8 The opening up of the Australian economy to international competition has continued since then. This in turn has resulted in a much greater emphasis being given to increases in productivity, improvements in work performance, the abolition of rules of demarcation, and workplace restructuring.

13.9 Coincident with these developments was an increased emphasis on agreement making and decentralised bargaining. Decentralisation related to movements away from centralised arbitration and conciliation arrangements (such as awards). These transformations have occurred in both the Commonwealth and State jurisdictions, although the timing and nature of industrial reforms have varied.

13.10 At the Federal level, the introduction of a series of bargaining principles (the Restructuring and Efficiency Principle, the Structural

Efficiency Principle, and the Enterprise Bargaining Principle) by the Australian Industrial Relations Commission in 1991 provided a framework for decentralised bargaining and workplace reform. The Industrial Relations Reform Act 1993 encompassed provisions to better allow enterprise bargaining in non-unionised workplaces. The opening up of collective bargaining to workers not represented by unions meant that wages and employment conditions could be changed without unions being directly involved in negotiations. The Workplace Relations Act 1996 introduced further labour market reforms, enabling the development of individual worker agreements (Australian Workplace Agreements) as well as continuing collective worker agreements (Certified Agreements). The same legislation also facilitated the simplification of awards. At the same time, industrial reform also took place at the State level aimed at encouraging decentralised bargaining and workplace reform.

13.11 The level of trade union membership has been generally declining, coinciding with the industrial changes noted above. For most of the last century the proportion of employees who were union members ranged between 42% and 62%. However, the 1990s witnessed significant reductions, to 26% in August 1999 and 18% in August 2010.

13.12 For most of the last century the combined effects of State and Federal industrial relations legislation encouraged unionism. One of the aims of the Conciliation and Arbitration Act 1904 was to facilitate and encourage the organisation of bodies of employers and of employees and the submission of industrial disputes to the Court by organisations. Unions played a critical role in the centralised tribunal based system - indeed the only parties that could request the settlement of a dispute by the Court under the Act were 'registered organisations', that is, unions of employers or employees. The granting of preference clauses in awards for engagement and retrenchment, to unionists over non-unionists, further promoted membership in unions.

13.13 In more recent times the roles of unions under State and Federal industrial relations legislation have been less pivotal. The emphasis on decentralised bargaining and the opening up of both collective and individual bargaining to workers not represented by unions have reduced the role of unions in the wage negotiation process. Restriction of the content of Federal awards to certain allowable matters has further encouraged workers to bargain for wages and other employment conditions outside of award provisions. Other reasons for the decline in union membership include the exclusion of union preference clauses from awards, changing public sentiment towards unions, declines in employment in industries that traditionally were highly unionised, and the emergence of new industries that are less unionised.

13.14 The level of industrial disputation in Australia has also decreased in recent years, with significant declines in strike and lockout activity since the 1980s. Traditionally, awards were the mechanism used by industrial tribunals to settle and prevent disputes, with unions bringing disputes (both 'actual disputes' and 'paper disputes') to the tribunals to improve the wages and other conditions of employment of their members. However, few disputes are now brought before the industrial tribunals for resolution. Those disputes that are brought before the tribunals tend to be of a longer duration and involve fewer workers. The majority of disputes tend to be short (one day or less in duration) and involve many workers.

13.15 Under decentralised bargaining systems, industrial action is only legal during the period in which employees and employers bargain on wages and other conditions of employment, so long as the action is supporting or advancing claims in relation to the enterprise bargaining, and that the existing agreement has passed its nominal expiry date. Accordingly, neither party may legally engage in industrial action when an agreement is in place (except over Occupational Health and Safety issues). However, disputes sometimes occur outside these periods.

13.16 More recent times have seen significant changes to the workplace relations landscape in Australia. The introduction of the *Workplace Relations Amendment (Work Choices) Act 2005* represented a movement towards a single, unified system of labour law, through the use of the corporations powers of the constitution. Work Choices resulted in key areas of change in the workplace relations environment, such as new arrangements for setting minimum wages and conditions, award simplification and rationalisation, a changed role for the Australian Industrial Relations Commission and the creation of the Australian Fair Pay Commission, increased regulation of industrial disputes, and changes to unfair dismissal laws.

13.17 The *Fair Work Act 2009*, which took effect on 1 July 2009, replaced the *Workplace Relations Amendment (Work Choices) Act 2005*. While the new legislation has resulted in considerable change to the workplace relations landscape, the general structure of a unitary national system for workplace relations, based primarily on the powers of the constitution, has remained. In addition, all states and territories, except Western Australia, had already or have now referred their workplace relations powers with respect to sole traders and partnerships to the Commonwealth as of 2011 (while Victoria, Northern Territory and Australian Capital Territory did not have a state workplace relations system in operation). This has seen the proportion of employees who are in the federal jurisdiction rise to 87% in 2010. As well as the introduction of modern awards, a set of minimum National Employment Standards were introduced from early 2010. The *Fair Work Act 2009* also established Fair Work Australia (Now Fair Work Commission) to operate as the body responsible for setting minimum wages and conditions for employees in the national workplace relations system.

METHODS OF SETTING PAY

13.18 Statistical measures relating to how employees' pay is set (such as award only or through an agreement) are used to monitor the effects of industrial and workplace relations reforms and wages policy.

Concepts and International Guidelines

13.19 International guidelines on the production of statistical measures on how pay is set concern collective agreements (ICLS 1926) and relate to the numbers of, contents of, and employee coverage of collective agreements. A collective agreement is defined as "a written agreement concluded between one or more employers or an employers' organisation on the one hand, and one or more workers' organisations of any kind on the other, with a view to determining the conditions of individual employment, and in certain cases, to the regulation of other questions relative to employment".

Definitions used in ABS surveys

13.20 The ABS does not collect statistics on the numbers or contents of collective agreements as defined by ICLS guidelines described above. However, data about pay setting methods are collected in the ABS Survey of Employee Earnings and Hours (footnote 1). The definitions associated with these methods are outlined below.

13.21 The survey identifies the main method used to set pay for employees in Australia, and estimates the proportion of employees who had their pay set using each method. The methods used to set pay identified in the survey are:

- award only;
- collective agreement; and
- individual arrangement.

13.22 Employees who have their pay set by an award or pay scale only had their rate of pay specified by an award or pay scale and were not paid more than that rate of pay. Awards are defined as legally enforceable determinations made by Federal or State industrial tribunals or authorities that set the terms of employment (pay and/or conditions) usually in a particular industry or occupation. Awards have been the traditional way of setting minimum pay and conditions in Australia and provide a safety net for employees. Employees on 'over-award' pay (i.e. paid at a certain amount or percentage above the rate of pay specified in an award) are classified as having their pay set by an unregistered individual arrangement. Under the current workplace relations system established by the *Fair Work Act*(2009), Fair Work Australia determines the minimum pay and conditions of employees in the national workplace relations system (federal jurisdiction) through modern awards. The minimum wage of each modern award is reviewed annually.

13.23 Employees who have a collective agreement with their employer which sets the main part of their pay are classified as having their pay set by a collective agreement. A collective agreement is defined as an agreement between an employer (or group of employers) and a group of employees (or one or more unions or employee associations representing the employees). A collective agreement sets the terms of employment (pay and/or conditions) for a group of employees. Collective agreements are further classified as registered or unregistered, reflecting whether they are registered with a Federal or state industrial tribunal or authority.

13.24 Employees who have an individual agreement, contract or other arrangement with their employer which sets the main part of their pay, or are a working proprietor of an incorporated business, are classified as having pay set by an individual arrangement. An individual arrangement is defined as an arrangement between an employer and an individual employee on the terms of employment (pay and/or conditions) for the employee. Common types of individual arrangements are individual contracts (which are not allowed to be made under the *Fair Work Act*), letters of offer and common law contracts. An individual contract (or letter of offer) may specify all terms of employment, or alternatively may reference an award for some conditions and/or in the setting of pay (e.g. over-award payments). Working proprietors of incorporated businesses are regarded as having their pay set by an individual arrangement, and are identified separately in the individual arrangement category.

13.25 There are some differences between the international definition of collective agreement and that used in the Survey of Employee Earnings and Hours:

- the definition of collective agreements outlined in the international guidelines is broader than the definition used in the survey. The international definition encompasses both collective agreements and awards as defined in the ABS survey; and
- the definition of collective agreements outlined in the international guidelines is restricted to written agreements, whereas the survey definition includes both written and oral agreements.

Data sources

13.26 Statistics on the characteristics of employees, their earnings and how their pay is set, for each of the methods of setting pay (award or pay scale only, collective agreement, and individual arrangement), are currently produced from the biennial ABS business survey, the Survey of Employee Earnings and Hours. For more information on the content and collection methodology of this survey, refer to Chapter 30.

Numbers and contents of collective agreements

13.27 The ABS does not collect statistics on the numbers or contents of collective agreements as defined by ICLS guidelines described above. However, information of this type is available from other sources for collective agreements available under various State and Federal industrial relations jurisdictions. The amount and type of information available vary significantly, and readers should note that statistical measures produced are not necessarily consistent with international statistical guidelines or other ABS measures of the economically active population.

13.28 Measures of numbers of awards and collective agreements that have been arbitrated, certified or registered with industrial tribunals are often published in the annual reports of the various State and Federal industrial relations tribunals. They are generally restricted to the numbers of award or pay scale only and collective agreements registered over a given reference period, and may also include details of the numbers of award or pay scale only and collective agreements currently in force and not replaced, and details of employees covered at registration date. Details of the numbers, employee coverage, wage outcomes and contents of certain types of collective agreements are also available from the Australian Centre for Industrial Relations Research and Training, the Federal Department of Education, Employment and Workplace Relations (Federal certified agreements) and, from time to time, the equivalent State government departments.

TRADE UNION MEMBERSHIP

13.29 Union membership in Australia has declined since the mid 1970s. The changing workplace relations environment is one of the key factors in the decline in trade union membership. Another factor is the change in the composition of the labour market, with a decline in jobs in the industries and types of employment (full-time permanent) that were traditionally highly unionised. An article entitled 'Trade union membership' published in Australian Labour Market Statistics, July 2010 (cat. no. 6105.0), provides further information on the decline in trade union membership.

Concepts and definitions

13.30 A trade union is defined as "an organisation consisting predominantly of employees, the principal activities of which include the negotiation of rates of pay and conditions of employment for its members".

13.31 There are no international recommendations or guidelines relating to statistics on trade union membership. However, numbers of employees who are members of a trade union are collected by the ABS annually in a supplementary survey to the Labour Force Survey, the Employee Earnings, Benefits and Trade Union Membership Survey.

Data sources

13.32 Estimates of the number and proportion of employees who are trade union members, and the duration of and time since an employee was previously a trade union member, are produced annually from the Employee Earnings, Benefits and Trade Union Membership Survey. Readers should refer to Chapter 21.2 for more detail on the content and methodology of this survey.

INDUSTRIAL DISPUTES

International concepts and guidelines

13.33 International guidelines (ICLS 1993) define labour disputes as "a state of disagreement over a particular issue or group of issues over which there is conflict between workers and employers, or about which grievance is expressed by workers or employers, or about which workers or employers support other workers or employers in their demands or grievances". Labour disputes comprise strikes, lockouts and other types of action in which workers may be involved. Involvement may be direct or indirect: for example, workers may participate directly in a strike by stopping work, or indirectly if they are prevented from working because of the strike. Secondary effects of action due to labour disputes are excluded from measures of disputes.

13.34 Strikes are defined in international guidelines as "a temporary work stoppage effected by one or more groups of workers with a view to enforcing or resisting demands or expressing grievances, or supporting other workers in their demands or grievance". Lockouts are defined as "a total or partial temporary closure of one or more places of employment or the hindering of the normal work activities of employees, by one or more employers with a view to enforcing or resisting demands or expressing grievances, or supporting other employers in their demands or grievances". Other types of action are defined as "actions effected by one or more groups of workers or by one or more employers, with a view to enforcing or resisting demands or expressing grievances, or supporting other workers or employers in their demands or grievances, in which there is no cessation of work". Other types of action include work bans, go slows, work limitations etc. Secondary effects are "the effects on other establishments where workers are prevented from working or their work is disrupted, or the effects on other groups of self-employed workers who are prevented from working or whose work is disrupted". Examples of secondary effects include stand-downs because of lack of materials, disruption of transport services, and power shortages.

13.35 The international guidelines recommend a core set of statistical measures of disputes be collected, and that these be supplemented or extended by additional measures as appropriate. The core set of statistical measures should cover all strikes and lockouts, and all employees directly involved. Other types of industrial action and the self-employed are not core and should only be included where relevant. Measures of strikes and lockouts that should be collected include: numbers and duration of strikes and lockouts; and both numbers of workers involved and amounts of time lost by workers involved. Where possible, data relating to strikes and lockouts should be collected, compiled and presented separately.

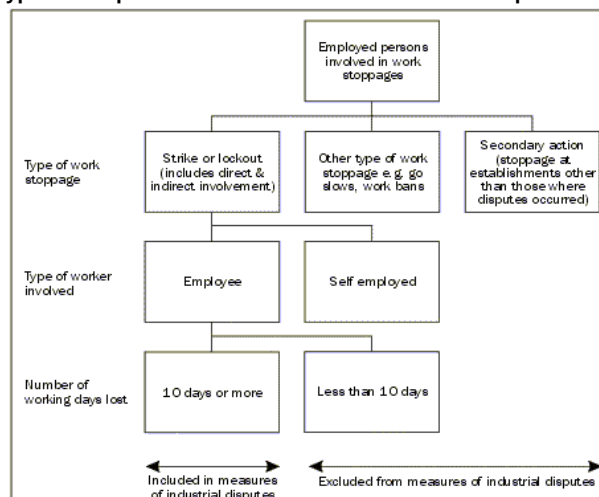
Definitions used in ABS industrial disputes collection

13.36 Statistics on industrial disputes are collected by the ABS on a monthly basis in the Industrial Disputes collection and released for a quarterly reference period. Statistics on disputes in this collection are, as much as possible, based on the concepts and definitions outlined in international guidelines. The term 'industrial dispute' is defined more narrowly than in the international guidelines and refers to only 'strikes' and 'lockouts'. An industrial dispute is defined as "a state of disagreement over an issue or group of issues between an employer and its employees, which results in employees ceasing work. Industrial disputes comprise strikes, which are a withdrawal from work by a group of employees; and lockouts, which are a refusal by an employer or group of employers to permit some or all of their employees to work".

13.37 The ICLS definitions of strikes and lockouts (paragraph 13.35) explicitly mention the temporary nature of the stoppage or closure, and disputes in support of other workers. However, while neither of these issues is explicitly included in the ABS definition, both are applied in the collection of statistics. Statistics on industrial disputes are restricted to stoppages of work of ten working days or more and exclude both 'other forms of action' and the 'self-employed'. The number of working days lost is defined as the total amount of ordinary time lost by employees on strike or locked out, regardless of the length of the stoppage. Statistics include direct and indirect involvement at the locations where the stoppages occurred, but exclude secondary effects of industrial action (e.g. stand-downs at other locations because of lack of materials).

13.38 Diagram 13.1 illustrates the criteria used to include or exclude industrial disputes from ABS statistics.

13.1 Types of disputes included in the ABS industrial disputes collection



13.39 Other data collected in the Industrial Disputes collection include:

- Cause of dispute - relates to the main cause of stoppages of work and not necessarily all causes that may have been responsible for work stoppages. Initially, the classification of 'Cause of dispute' identifies whether a dispute occurred during a process of workplace/enterprise bargaining. Disputes are then further classified according to the main cause of the dispute. Causes include: remuneration; employment conditions; health and safety; job security; managerial policy; and union issues.
- Working days lost per employee involved - for an individual dispute, defined as the average number of working days lost per employee involved in the dispute. It is calculated by dividing the number of working days lost in the dispute by the number of employees involved (both directly and indirectly).
- Employees directly involved in a dispute - those who actually participated in the dispute in order to enforce or resist a demand or to express a grievance.

- Employees indirectly involved in a dispute - those who were stood down at the location where the dispute occurred, but who were not themselves parties to the dispute. Employees who were stood down at locations other than those where the dispute occurred are excluded.
- Employees newly involved in a dispute - for a new dispute, comprises all employees involved and, for an ongoing dispute, those involved for the first time.
- Total employees involved - comprises employees newly involved and, for an ongoing dispute, those who continue to be involved. Total employees involved for any period of time is obtained by adding together the number of employees involved in each dispute for the period.
- Reason work resumed - relates to the reason(s) for ending the stoppage of work and not necessarily to the reason(s) for settling all matters in the dispute. Reasons include: negotiation without intervention of a third party; State legislation; Federal legislation; pre-determined return to work; resumption without negotiation; and mediation.
- Working days lost - refers to working days lost by employees directly and indirectly involved in the dispute. Estimates of working days lost per thousand employees are calculated for a quarterly period by dividing the total number of working days lost in the period by the total number of employees in the Australian workforce in the period (obtained from the ABS Labour Force Survey) and multiplying by 1,000.

Data sources

13.40 ABS statistics on industrial disputes are released each quarter in Industrial Disputes, Australia (cat. no. 6321.0.55.001). Readers should refer to Chapter 26 for more detail on the content and methodology of this collection.

FURTHER INFORMATION

13.41 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>

FOOTNOTES

1. Data on methods used to set pay are only available from Surveys of Employee Earnings and Hours conducted biennially from May 2000 onwards. <back

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Chapter 14. Labour Productivity

CHAPTER 14. LABOUR PRODUCTIVITY

INTRODUCTION

14.1 A productivity measure is an indicator of the efficiency or effectiveness of production, that is how much production is achieved given a certain amount of resources, or inputs. The broadest definition of 'productivity', from the ILO, is "the ratio between output and the total input of factors required to achieve it". In this sense, productivity is "the end result of a complex social process including: science, research and development, education, technology, management, production facilities, workers' and labour organisations".

14.2 Most analyses seeking to measure productivity have confined themselves to a partial, or single factor, measure, as opposed to total factor (or multi-factor) productivity. Single factor measures of productivity are expressed as a ratio between a given measure of output and a given measure of one factor of production (labour, capital, raw materials, etc.). It follows that there are many measures of productivity, each of which relates to a particular factor of production. Thus it is possible to speak of the productivity of labour, of capital, of raw materials, etc. Such measures reflect the growth in output not accounted for by the growth in that particular factor of production. Thus, the ratio of output to hours worked - often referred to as a measure of labour productivity - reflects the growth in output attributable to all factors of production other than hours worked. Often the measure used varies in accordance with the level at which productivity is analysed, e.g. plant, industry, branch of the economy or the economy as a whole.

14.3 Increases in labour productivity are often regarded as an indicator of improvements in aggregate living standards, as either more output (and thus total income) is achieved with given labour, or a given amount of output (and thus total income) is achieved with less time spent on labour.

CONCEPTS AND INTERNATIONAL GUIDELINES

14.4 While the ILO has published two studies (in 1951 and 1969) on the measurement of labour productivity, no fixed definitions have been promulgated by that organisation. The view taken in the 1969 study was that, while it was useful to have a set of definitions which correspond to the various measures of productivity, it was premature to set a single productivity ratio for each measure. At the same time it was recognised that time worked or labour force may be suitable measures of labour input, while physical output and value-based measures were appropriate for considering output for particular purposes. This flexibility remains appropriate depending on what use or analysis is to be performed with the productivity measure involved.

14.5 Considerations such as those led an ILO Working Group on Productivity Statistics to make recommendations, especially on the economic coverage of productivity series, the choice of units of measurement for output, and the corresponding labour input. While no recommendation was made as to which concept was most suitable for measuring national output, several participants in the Working Group preferred estimates at constant prices of gross domestic product at factor cost. In respect of the measurement of labour inputs, the concern was to ensure that account was taken of all the activities of all persons engaged in production.

14.6 The Working Group considered that the improvement of labour productivity statistics depended on better national statistics on output, and on the existence of corresponding data for employment or hours of work. Similarly, it was considered that the ability to compare the trend and level of productivity between one country and another improved with the use of comparable concepts for the definition of output, input and prices, and the wider use of international standards in existence in these fields. The standards being referred to, in particular, were those of the International Conference of Labour Statisticians in respect of input, the United Nations System of National Accounts in respect

of output, and the International Standard Industrial Classification in respect of scope and classification.

ABS DEFINITIONS, METHODOLOGY AND SOURCES

14.7 The ABS recognises that the level of gross domestic product and changes in real gross domestic product are a function of many different factors including capital, labour, technical knowledge, scale of production and managerial efficiency. Changes in any one of these factors can result in productivity changes. While it is impossible to objectively measure the role of these factors separately, it is recognised that one of the most important and widely accepted analytical series, which is a measure of labour productivity, is real gross domestic product per hour worked.

14.8 Estimates of labour productivity (based on gross domestic product per hour worked) for the market sector as a whole and for each industry are compiled by the ABS and published in the annual Australian System Of National Accounts (Cat. No. 5204.0). Quarterly indexes of gross domestic product per hour worked are published for the market sector and for the whole economy in Australian National Accounts: National Income, Expenditure and Product (Cat. No. 5206.0).

14.9 As partial measures of productivity, labour productivity indexes implicitly reflect the other factors of production, such as the contribution of capital and other factors affecting production such as technological change. When multiple factors of production such as labour and capital are explicitly considered as inputs, this is termed multi-factor productivity (MFP), which is measured as GDP per combined unit of labour and capital. Therefore, MFP is often also used in productivity analysis, and for this reason, the ABS also publishes annual indexes of MFP for the market sector in Australian System Of National Accounts (cat. no. 5204.0). In addition the ABS produces annual experimental MFP estimates at the industry level for industries within the market sector, which are available from *Experimental Estimates of Industry Multifactor Productivity* (cat. no. 5260.0.55.002). The choice of which productivity measure to use depends on what analysis is being performed.

LABOUR INPUT

14.10 In addition to considering types of analyses, the choice of productivity measure should also consider data availability. For many purposes it would be desirable for changes in the quality of labour employed (such as the proportion of skilled to unskilled employees) to be reflected in measures of labour input. However, because of data limitations, the most common measure of labour input used in compiling the estimates presented in Australian System Of National Accounts (cat. no. 5204.0) and Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0) is hours worked by total employed people. Sometimes, hours worked by employed people adjusted for their labour income is used. More sophisticated adjustments to labour input, such as adjusting for various skills or qualifications, become increasingly complex and would potentially require arbitrary weighting of each skill or qualification to determine an overall measure of the labour input.

14.11 The estimates of employment and hours worked are primarily drawn from the Labour force Survey for civilians, and from the Department of Defence for military personnel. For further details refer to Chapter 9 of Australian National Accounts: Concepts, Sources and Methods (cat. no. 5216.0).

CHAIN VOLUME ESTIMATES OF GROSS DOMESTIC PRODUCT

14.12 The estimates of real gross domestic product used in the derivation of the ABS labour productivity statistics are annually reweighted chain Laspeyres volume measures. The concepts and definitions used in deriving chain volume estimates are explained in Chapter 6 of Australian National Accounts: Concepts, Sources and Methods (cat. no. 5216.0).

GROSS DOMESTIC PRODUCT PER HOUR WORKED

14.13 In Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0) and Australian System Of National Accounts (cat. no. 5204.0) the term 'gross domestic product per hour worked' (and similar terminology for the industry statistics) is generally used in preference to 'labour productivity' because:

- the term is more self-explanatory; and
- the measure does not attribute change in gross domestic product to specific factors of production.

INDUSTRY CLASSIFICATION

14.14 The industry dissections of gross domestic product are referred to as industry gross value added. They and the associated industry estimates of hours worked are derived as consistently as possible in accordance with the Australian and New Zealand Standard Industrial Classification, 2006 (cat. no. 1292.0).

FURTHER INFORMATION

14.15 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 15. Occupational Injuries and Diseases

CHAPTER 15. OCCUPATIONAL INJURIES AND DISEASES

INTRODUCTION

15.1 From its inception, the International Labour Organisation (ILO) recognised the importance of establishing an adequate statistical basis

for the measurement and analysis of work related hazards and risks. Recommendations on the concepts associated with those statistics were made at the first, sixth, tenth, thirteenth and sixteenth (1998) International Conferences of Labour Statisticians (ICLS). Recommendations of the sixteenth ICLS are described in this chapter, along with sources of occupational injuries and diseases data available for Australia.

CONCEPTS AND INTERNATIONAL GUIDELINES

15.2 The sixteenth ICLS defined an occupational injury as "any personal injury, disease or death resulting from an occupational accident". An occupational disease was defined as "a disease contracted as a result of an exposure over a period of time to risk factors arising from work activity". The following terms, used when measuring the nature and incidence of occupational injuries, were also defined:

- occupational accident - an unexpected and unplanned occurrence, including acts of violence, arising out of or in connection with work, which results in one or more workers incurring a personal injury or death;
- commuting accident - an accident resulting in death or injury which occurs on the habitual route, in either direction, between the place of work or work-related training and: (1) the worker's residence; (2) the place where the worker usually takes meals; or (3) the place where the worker usually receives remuneration; and
- incapacity for work - the inability of a worker, due to an occupational injury, to perform the normal duties or tasks of the job occupied at the time of the accident.

15.3 The sixteenth ICLS made recommendations in relation to the coverage of statistics on occupational injuries and the types of information countries should aim to collect. Data should be collected for all of the occupational injuries defined above, for both fatal and non-fatal injuries which cause an absence of work of at least one day (excluding the day of the accident). The statistics should cover all workers regardless of their status in employment (e.g. employees, employers and own-account workers), as well as child workers, informal sector workers and homeworkers.

15.4 The measurement unit recommended to be used for statistics on the nature and incidence of occupational injuries should be the 'case of occupational injury'. If a person is injured in more than one occupational accident during the reference period, each case of injury to that person should be separately counted. The sixteenth ICLS also recommended that data should be collected on: the enterprise, establishment or local unit; the person injured; the injury; and the accident and its circumstances.

AUSTRALIAN COLLECTIONS AND DEFINITIONS

15.5 In Australia, statistics on occupational injuries and diseases are available from household surveys conducted by the ABS and administrative records of state, territory and Australian compensation authorities compiled by Safe Work Australia.

ABS Household Surveys

15.6 The main ABS statistics relating to the incidence of occupational injury and disease are available from the Work-related injuries topic on the Multipurpose Household Survey (MPHS) (see Chapter 22.3). The survey includes injuries sustained by all categories of employed workers, injuries that have been claimed under workers' compensation and injuries that have not been claimed under workers' compensation. It excludes work-related illnesses or injuries resulting in death.

15.7 While the terminology used in the Work-related injuries survey topic ('work-related injuries') differs from that used in the international standards, the underlying definitions are broadly consistent with those recommended by the ICLS. The survey has not sought to distinguish between 'work-related illnesses', 'work-related injuries' or 'work-related injuries sustained on journeys to or from work'. Instead, it broadly defines work-related injuries as illnesses or injuries sustained as a result of work activities, on a journey to or from work, or the aggravation of pre-existing conditions where employment was a contributory factor.

15.8 Some data are also available from the Australian Health Survey, which collects information about recent illnesses and long term conditions and whether they are work-related. For more information on survey content and methodology see the Australian Health Survey: Users' Guide, 2011–13 (cat. no. 4363.0.55.001).

Safe Work Australia's National Data Set for Compensation-based statistics

15.9 Safe Work Australia's National Data Set for Compensation-based Statistics (NDS) is a standard set of data items, concepts and definitions for inclusion in workers' compensation systems operating in Australia and enables the production of national and nationally comparable workers' compensation-based data. It is compiled from compensable injuries and diseases made under the state, territory and Australian Government worker's compensation Acts, and as such only covers compensable injuries and diseases (not information on workers not covered for workers' compensation or who choose not to make a claim).

15.10 The NDS is supported by several classification systems, including the Australian and New Zealand Standard Industrial Classification (ANZSIC), the Australian Standard Classification of Occupations (ASCO) and the Type of Occurrence Classification System (TOOCS). TOOCS is central to NDS. It consists of hierarchical classifications for nature, bodily location, mechanism, breakdown agency, agency of injury or disease.

15.11 Definitions of occupational injuries and occupational diseases used in the NDS are consistent with international standards. These definitions are:

- Occupational injuries - all employment related injuries which are the result of a single traumatic event occurring while a person is on duty or during a recess period and where there was a short or non-existent latency period. This includes injuries which are the result of a single exposure to an agent(s) causing an acute toxic effect.
- Occupational diseases - all employment related diseases which result from repeated or long-term exposure to an agent(s) or event(s) or which are the result of a single traumatic event where there was a long latency period (for example, the development of hepatitis following a single exposure to the infection).

15.12 The NDS coverage of workers' compensation claims is consistent with international standards except for:

- occupational injuries of self-employed people (note: the definition of self-employed workers varies across jurisdictions and is not necessarily consistent with ABS definitions);

- occurrences covered under separate legislation for specific groups of workers;
- occurrences where the workers' compensation claims are pending, in dispute, withdrawn or rejected; and
- occurrences not claimed as workers' compensation.

15.13 The type and level of detail of the information to be collected for each claim is consistent with international standards and include:

- employer description - industry, size of business;
- employee characteristics - date of birth, sex;
- job characteristics - occupation, duty status (e.g. at work, commuting, away from work), number of hours usually worked each week, normal weekly earnings, labour hire indicator, apprentice/trainee indicator;
- occurrence details - date of occurrence/report, nature of injury/disease, bodily location of injury/disease, mechanism of injury/disease, agency of injury/disease, breakdown agency of injury/disease; and
- outcome of incident - time lost, severity indicator, payments made.

15.14 More information on the NDS and workers' compensation data is available from Safe Work Australia's website, see Workers' compensation data.

FURTHER INFORMATION

15.15 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 16. Other Classifications Used in Labour Statistics

CHAPTER 16. OTHER CLASSIFICATIONS USED IN LABOUR STATISTICS

INTRODUCTION

16.1 Classifications group and arrange statistics into a coherent and standard structure. They are used for compilation and analysis, and to facilitate comparison with other statistical series. This chapter briefly outlines a number of standard economic, socio-demographic, and geographic classifications used to aggregate ABS labour statistics.

ECONOMIC CLASSIFICATIONS

16.2 Two standard economic classifications systems commonly used in ABS labour statistics relate to industry and sector.

INDUSTRY

16.3 An industry classification provides a framework which enables the grouping of businesses which carry out similar productive activities. The Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC) is the standard industry classification used in Australia for the collection, compilation and publication of statistics by industry. It closely aligns with the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, adopted by the United Nations Statistical Commission.

16.4 The ANZSIC has a hierarchical structure comprising four levels: Divisions (the broadest level), Subdivisions, Groups and Classes (the finest level). At the divisional level, the main purpose is to provide a limited number of categories for a broad overall picture of the economy and used for publication in summary tables. There are 19 divisions within the ANZSIC, each identified by a letter from A to S.

A Agriculture, Forestry and Fishing
 B Mining
 C Manufacturing
 D Electricity, Gas, Water and Waste Services
 E Construction
 F Wholesale Trade
 G Retail Trade
 H Accommodation and Food Services
 I Transport, Postal and Warehousing
 J Information Media and Telecommunications
 K Financial and Insurance Services
 L Rental, Hiring and Real Estate Services
 M Professional, Scientific and Technical Services
 N Administrative and Support Services
 O Public Administration and Safety
 P Education and Training
 Q Health Care and Social Assistance
 R Arts and Recreation Services
 S Other Services

16.5 The Subdivision, Group and Class levels provide increasingly detailed dissections of these categories for the compilation of specific and detailed statistics. For further information on ANZSIC, refer to Australian and New Zealand Standard Industrial Classification 2006 (cat. no. 1292.0).

SECTOR

16.6 There are a number of standard classifications which group the national economy into broad economic sectors. These sector classifications enable information to be provided about groups of economic units that have similar functions or institutional characteristics, for example, households, corporations or government units. The most relevant sector classifications for labour statistics are the Public/Private and Level of Government classifications. Other sector classifications include the Standard Economic Sector Classification of Australia (SESCA), Not For Profit, and Type of Legal Organisation. These are used within economic statistics. Sector classifications are described within the Standard Economic Sector Classifications of Australia (SESCA), 2008 (cat. no. 1218.0).

Public/private sector

16.7 The public/private classification is used to identify whether an enterprise is a public or private unit.

The public sector includes:

- Financial corporations controlled by government;
- Government agencies, Government departments;
- Non-financial corporations controlled by government;
- Notional institutional units controlled by government;
- Public financial corporations; and
- Public non-financial corporations.

The private sector includes:

- Household institutional units;
- Not-for-profit institutions;
- Private corporations;
- Private notional institutional units;
- Superannuation funds for public sector employees; and
- Unincorporated enterprises.

Level of government

16.8 The level of government classification is based on the economic function, or role, of public sector units and enables identification of public sector units by the level of government in which they operate. The classification has the following structure:

- National (or Commonwealth) Government;
- State/Territory Government; and
- Local government.

Note that when a public sector unit cannot be defined unambiguously as under the control of a single government, that unit will be classified to the level of government which typically has that role or function.

16.9 For more information on the classifications within the SESCO refer to Standard Economic Sector Classifications of Australia (cat. no. 1218.0).

SOCIO-DEMOGRAPHIC CLASSIFICATIONS

16.10 A range of socio-demographic data is available from labour-related household collections. Standard classifications used in the presentation of labour statistics include age, sex, birthplace, marital status, families and households, schooling and educational qualifications, language, and Aboriginal and Torres Strait Islander status. Statistical standards for social and demographic variables have been developed by the ABS and are described in Family, Household and Income Unit Variables (cat. no. 1286.0). Those relating to marital status, families and households, post-school educational qualifications, language, and Aboriginal and Torres Strait Islander status are discussed below.

MARITAL STATUS

16.11 Marital status is a core variable in a wide range of social, labour and demographic statistics, and is almost universally collected in ABS household collections. Its main purpose is to establish the living arrangements of couples in the Australian population. These living arrangements may be based on a legal concept (i.e. registered marriage), or a social, marriage-like arrangement (i.e. de facto marriage). Two separate concepts of marital status are measured, Registered Marital Status and Social Marital Status. These are discussed briefly below.

Registered marital status

16.12 Registered marital status is a person's relationship status in terms of whether he or she has, or has had, a registered marriage with another person for whom he or she holds, or held, a valid marriage certificate. Persons may be distinguished as:

- Never married;
- Widowed;
- Divorced;
- Separated; or
- Married.

Social marital status

16.13 Social marital status is a person's relationship status in terms of whether he or she forms a couple relationship with another person. A couple relationship is based on a consensual union, and is defined as two people usually residing in the same household who share a social, economic and emotional bond usually associated with marriage, and who consider their relationship to be a marriage or marriage-like union. This relationship is identified by the presence of a registered marriage or de facto marriage. Persons may be distinguished as:

- Registered marriage;
- De facto marriage; or
- Not married.

FAMILIES AND HOUSEHOLDS

16.14 The concepts of families and households are fundamental in the collection and dissemination of both social and labour statistics. A household can be thought of, in its broadest sense, as a group of people who live and eat together as a single unit within a dwelling. Notions of what constitutes a family vary. However, for statistical purposes it is defined within ABS collections as two or more related (by blood, marriage, adoption, step or fostering) persons, one of whom is at least 15 years of age, who are usually resident in the same household. Households and families constitute the basic groups of social aggregation. While the concept of household is broader than the concept of family, in practice both refer often to the same set of people. Classifications relating to Household composition, Relationship in household, Family composition and Relationship between families are discussed briefly below. For further information on these classifications refer to Family, Household and Income Unit Variables (cat. no. 1286.0).

Household Composition

16.15 Household composition is used to describe and categorise households on the basis of the number of families present, whether or not non-family members are present (family households only), and the number of household members (non-family households only). The standard Household composition classification is:

- One family household
 - One family household with only family members present
 - One family household with non-family members present
- Multiple family household
 - Two family household
 - Two family household with only family members present
 - Two family household with non-family members present
 - Three or more family household
 - Three or more family household with only family members present
 - Three or more family household with non-family members present
- Non-family household
 - Lone person household
 - Group household

Relationship in Household

16.16 Relationship in Household describes the familial and non-familial relationship of each person within each family in a given household. The familial relationship within each family is measured with reference to a family reference person chosen for that particular family.

16.17 The Relationship in Household classification has a four level hierarchical structure: major group and detailed minor groups. The major groups are distinguished from each other in terms of the presence or absence of residency, family membership, and relationship to reference person within the household. The major groups are:

- Husband, wife or partner
- Lone parent
- Child under 15
- Dependent student
- Non-dependent child
- Other related individual
- Non-family member

16.18 The minor groups provide more detailed information about the relationship within the household. For example, a child under 15 years of age is further classified as being: a natural or adopted child; a step child; a foster child; grandchild; an otherwise related child; or an unrelated child.

Family Composition

16.19 Statistics on family type are used to identify family structures, and are used extensively in measures of the social wellbeing of the family unit and the individuals within those families. Operationally a family is defined as two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household. The basis of a family is formed by identifying the presence of a couple relationship, lone parent-child relationship or other blood relationship. Some households will, therefore, contain more than one family.

16.20 The Family Composition classification has a four level hierarchical structure. The groups at the highest level are distinguished from each other on the presence or absence of a couple relationship, parent-child relationship, or other blood relationship. The four groups are:

- Couple family with no children
- Couple family with children
- One parent family
- Other family

16.21 The remaining three levels provide increasingly detailed dissections of the broad categories, based on the presence or absence of children aged under 15 years, dependent students and non-dependent children. In addition to the four distinct levels, information about the 'type of couple' is provided to distinguish the sex of partners in couple relationships.

EDUCATION

16.22 A standard classification of educational activity, the Australian Standard Classification of Education (ASCED) (cat. no. 1272.0), was released in 2001.

16.23 The ASCED has been developed to classify educational activity by the level and field of the activity. It also provides the flexibility to report statistics on different aspects of education such as enrolments, resources (human and financial) used, or the educational attainment of

the population. ASCED has been designed to be applied to a number of education-related concepts, such as a 'qualification', a 'unit of study', a 'module' or a 'course'. The classification includes all pre-primary, primary and secondary school education as well as all formal non-school education and training. ASCED classifies education according to two elements: level of education; and field of education. These elements are described below and can be used separately or in combination. For further information, refer to Information Paper: Australian Standard Classification of Education (ASCED) (cat. no. 1271.0).

Level of education

16.24 Level of education is a function of the quality and quantity of learning associated with an educational activity and is assessed in terms of the following criteria: the theoretical and vocational orientation of the educational activity; the minimum entry requirements for the educational activity (i.e. the minimum amount of prior education needed to undertake the educational activity at that level); and the course length (or notional duration of the educational activity).

16.25 The level of education classification has nine broad levels:

- Postgraduate Degree Level
- Graduate Diploma and Graduate Certificate Level
- Bachelor Degree Level
- Advanced Diploma and Diploma Level
- Certificate Level
- Secondary Education
- Primary Education
- Pre-Primary Education
- Other Education

Field of education

16.26 Field of education refers to the subject matter included in an educational activity. Fields of education are related to each other through the similarity of subject matter, through the broad purposes for which the study is undertaken, and through the theoretical content which underpins the subject matter. Fields of education are classified into progressively broader groups according to the following criteria: the theoretical content of the course; the purpose of learning; the objects of interest; the methods and techniques; and the tools and equipment.

16.27 The Field of Study Classification consists of three hierarchical levels; Broad Field; Narrow Field; and Detailed Field. The detailed fields aggregate into narrow fields and the narrow fields in turn aggregate into broad fields. The 12 Broad Field categories are:

- Natural and Physical Sciences
- Information Technology
- Engineering and Related Technologies
- Architecture and Building
- Agriculture, Environmental and Related Studies
- Health
- Education
- Management and Commerce
- Society and Culture
- Creative Arts
- Food, Hospitality and Personal Services
- Mixed Field Programmes

LANGUAGE VARIABLES

16.28 The development of Australia as a multicultural society and the subsequent wider interest in constructing statistical profiles of particular ethnic or cultural population groups has, over the years, increased the use of and need for quality language data. To meet these growing needs, the ABS has incorporated language questions in a range of social statistics collections. Variables collected include 'main language spoken at home', 'first language spoken', and 'proficiency in spoken English'.

16.29 Languages are classified according to the Australian Standard Classification of Languages (ASCL) (cat. no. 1267.0), and readers should refer to this publication for more information about what constitutes a language as well as for further information on the classification itself.

16.30 Questions on 'proficiency in spoken English' are asked only of persons who speak languages other than English at home or whose first language spoken was other than English. Respondents are asked to classify themselves as speaking English: very well; well; not well; or not at all.

ABORIGINAL AND TORRES STRAIT ISLANDER STATUS

16.31 Accurate and consistent statistics about Aboriginal and Torres Strait Islander peoples are needed in order to plan, promote and deliver essential services, to monitor changes in well-being and to account for government expenditure in this area. The 'Commonwealth working definition' of an Aboriginal or Torres Strait Islander is "a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which he or she lives" (footnote 1). In ABS statistical collections, it is not feasible to collect information on the community acceptance part of this definition, and therefore questions on Aboriginal and Torres Strait Islander Status relate to descent and self-identification only. In practice, people are asked if they are of Aboriginal or Torres Strait Islander origin.

16.32 The classification for Aboriginal and Torres Strait Islander Status has a hierarchical structure comprising two levels. There are four categories at the detailed level of the classification (see below) which are grouped into two categories at the broader level. There is one supplementary category. Statistics are often only available at the broad levels of the classification. For further information, refer to Standards for Statistics on Cultural and Language Diversity (cat. no. 1289.0).

- Aboriginal but not Torres Strait Islander Origin
- Torres Strait Islander but not Aboriginal Origin
- Both Aboriginal and Torres Strait Islander Origin

- Neither Aboriginal nor Torres Strait Islander Origin

GEOGRAPHIC CLASSIFICATIONS

16.33 There are two geographic classifications used by the ABS for the collection and dissemination of geographical statistics: the Australian Statistical Geography Standard (ASGS) (cat. no. 1270.55.001); and the Standard Australian Classification of Countries (SACC) (cat. no. 1269.0). The ASGS brings all Australian regions for which the ABS publishes statistics within the one framework. The SACC is a classification of countries based on the concept of geographic proximity. Both classifications are used in the collection and dissemination of ABS labour-related statistics. They are discussed further below.

AUSTRALIAN STATISTICAL GEOGRAPHY STANDARD (ASGS)

16.34 The ASGS brings together all Australian regions on which the ABS publishes statistics within the one framework. It was used for the 2011 Census of Population and Housing and introduced into ABS labour collections from mid 2013. The ASGS replaces the Australian Standard Geographical Classification (ASGC).

16.35 The ASGS classification structures are split into two broad groups, the ABS Structures and the Non-ABS Structures. The ABS Structures are hierarchies of regions defined and maintained by the ABS. The Non-ABS Structures are hierarchies of regions which are not defined or maintained by the ABS, but for which the ABS is committed to providing a range of statistics. They generally represent administrative units such as Postcode and Local Government Areas. The ABS Structures are built directly from Mesh Blocks. Non-ABS Structures are approximated by either Mesh Blocks, the Statistical Areas Level 1 (SA1s) or the Statistical Areas Level 2 (SA2s).

16.36 The ABS Structures comprise six interrelated hierarchies of regions. They are:

- Main Structure;
- Indigenous Structure;
- Urban Centres and Localities/Section of State Structure;
- Remoteness Area Structure;
- Greater Capital City Statistical Area (GCCSA) Structure; and
- Significant Urban Area Structure.

16.37 Under the main structure, Statistical Area Level 4 (SA4) regions are the largest sub-State regions in the ASGS and will be used for the release of Labour Force Statistics. They are designed for the output of labour force data and reflect labour markets within each State and Territory within the population limits imposed by the Labour Force Survey sample.

16.38 The Non-ABS Structures comprise eight hierarchies of regions. They are:

- Local Government Areas (LGAs)
- Postal Areas;
- State Suburbs;
- Commonwealth Electoral Divisions;
- State Electoral Divisions;
- Australian Drainage Divisions;
- Natural Resource Management Regions; and
- Tourism Regions.

16.39 The ASGS is constructed on the principle that it must fulfil user needs for spatial statistics while also conforming to general classification principles.

16.40 For further information about the ASGS, refer to the Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas (ASGS) (cat. no. 1270.0.55.001).

STANDARD AUSTRALIAN CLASSIFICATION OF COUNTRIES (SACC)

16.41 The Standard Australian Classification of Countries (SACC) (cat. no. 1269.0) is a classification of countries essentially based on the concept of geographic proximity. In its structure, it groups neighbouring countries into progressively broader geographic areas on the basis of their similarity in terms of social, cultural, economic and political characteristics.

16.42 The base level units in the classification are 'countries' which is defined to include:

- fully independent countries (sovereign nation states);
- administrative subdivisions of the United Kingdom (England, Scotland, Wales and Northern Ireland);
- external territories and dependencies of independent countries, for example, Falkland Islands, Martinique;
- units which are recognised geographic areas, the ownership or control of which is in dispute, e.g. West Bank/Gaza Strip; and
- residual categories ('not elsewhere classified' categories) consisting of geographic areas which are not separately identified in the classification and which are not part of one of the separately identified base level units. e.g. Polynesia (excludes Hawaii), nec, contains a number of minor islands which are not part of any of the separately identified country units of the Minor Group Polynesia (excludes Hawaii).

16.43 The classification includes all countries currently existing in the world, as defined above.

16.44 The SACC is a three-level hierarchical classification ranging from broad major groups to the base unit of discrete countries, as defined above. The three levels consist of:

- 255 discrete countries, as described above
- 27 minor groups, which are groups of neighbouring countries and aggregated to form
- 9 major groups,

16.45 Each of the 9 major groups are formed by aggregating geographically proximate minor groups, which in turn are groups of

neighbouring countries similar in terms of social, cultural, economic and political characteristics. Each major group lies wholly within the bounds of a single geographic continent (with two exceptions: North Africa and the Middle East, and Americas). The nine major groups are:

- Oceania and Antarctica
- North-West Europe
- Southern and Eastern Europe
- North Africa and the Middle East
- South-East Asia
- North-East Asia
- Southern and Central Asia
- Americas
- Sub-Saharan Africa

16.46 For further information about the SACC please refer to the Standard Australian Classification of Countries (SACC) (cat. no. 1269.0)

FURTHER INFORMATION

16.47 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

FOOTNOTES

1. Department of Aboriginal Affairs 1981, Report on a review of the administration of the working definition of Aboriginal and Torres Strait Islanders. <back

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Chapter 17. Overview of Survey Methods

CHAPTER 17. OVERVIEW OF SURVEY METHODS

INTRODUCTION

17.1 The methods part of this publication describes the major ABS statistical surveys in the field of labour statistics and their compilation methods. Detailed information on scope, coverage, sample design, collection processes, estimation techniques and statistical output is presented for each of the surveys.

17.2 This chapter provides an overview of key aspects of survey design. It defines and explains key concepts and terms that relate to survey design. It commences with a discussion of sample surveys and censuses, and collection methodologies used in ABS surveys. The rest of the chapter is organised into the following topics: sample design and sampling techniques; estimation; time series estimates; reliability of estimates; output; and data comparability over time.

17.3 The subsequent chapters are organised into two sections. ABS household surveys are presented in chapters 18 to 24, and ABS business surveys in chapters 25 to 33. Each section begins with a chapter outlining aspects of survey methodology which are common to the type of survey being discussed (i.e. household or business survey). A separate chapter is then devoted to each major labour-related ABS survey.

SAMPLE SURVEYS VERSUS CENSUSES

17.4 The ABS uses both sample surveys and censuses to collect information from a population about characteristics of interest. In the field of labour statistics, the ABS uses sample surveys of both households and businesses, as well as censuses (such as the Industrial Disputes collection).

17.5 Censuses involve the collection of information from all units in the target population, while sample surveys involve the collection of information from only a part (sample) of the target population.

17.6 Sample surveys have both advantages and disadvantages when compared with censuses. Some advantages are reduced costs (as less time is needed to collect, process and produce data), possible reductions in non-sampling error (this concept is discussed in further detail later in this chapter), improved timeliness and the potential to gather more detailed information from each respondent.

17.7 A disadvantage of sample surveys is that estimates are subject to sampling error which occurs because data were obtained from only a sample, rather than the entire population (this concept is discussed in further detail later in this chapter). Also, as a result of obtaining only a small number of observations in particular geographical areas and sub-populations, detailed cross-tabulations may be subject to high levels of error and be of limited use.

17.8 Censuses are generally used when broad level information is sought for many fine sub-groups of the population, whereas Sample Surveys are used to collect detailed information to estimate for broader levels of the population.

COLLECTION METHODOLOGY

17.9 A number of methods are used by the ABS for collecting data. Those most commonly used in labour-related surveys can be categorised into three basic groups:

- interview;
- self-enumeration; and
- documentary sources.

INTERVIEW

17.10 The interview method of data collection involves an interviewer contacting data providers, asking the questions, and recording the responses. Interviews can be either personal, where the data provider is interviewed personally, or involving Any Responsible Adult (ARA), where the ARA responds on behalf of other survey units. Interviews can be conducted either face to face or over the telephone, and can be computer assisted. Interviews are most commonly used in household surveys.

Personal interview

17.11 Personal interviewing involves each provider being questioned about his or her own details.

Any Responsible Adult interview

17.12 The Any Responsible Adult (ARA), or proxy, method of interviewing is used in a number of ABS household surveys as an alternative to personal interviewing. This involves obtaining information about all the persons in a selected household who are in scope of the survey, from the first responsible adult with whom the interviewer makes contact (rather than speaking to each individual personally). The method is only used for collecting information on topics where other members of the household are likely to be able to answer the question. If the ARA is unable to supply all of the details for another individual in the household, a personal interview is conducted with that particular individual.

Face to face interview

17.13 Face to face interviews involve a trained interviewer visiting the provider to conduct the survey. Advantages of this method of data collection are higher response rates and improved data quality. Interviewers are able to help respondents understand the questions and provide correct answers, thereby allowing for the collection of more complex data. The improved quality of the data means that less data editing and correction is required at a later stage.

17.14 However, face to face interviews are expensive. There are costs involved in time and travel to reach the respondents, and in the recruitment, training, and management of an interviewer work force. Other disadvantages are that data can possibly be subject to bias caused by the interviewer's appearance and attitude, and that respondents may not feel free to disclose sensitive or private information to an interviewer.

Telephone interview

17.15 In telephone interviews the providers are asked the survey questions over the telephone. This reduces the costs compared to face to face interviews as fewer interviewers are needed and there are no travel costs involved. Telephone interviews can also produce more timely results. Call-backs for 'not-answering' and follow-ups for additional information are relatively quick and inexpensive.

17.16 As with other methods of data collection, there are some drawbacks associated with this approach. There are limits on the number and complexity of questions that can be asked and, because of the ease with which the respondent can terminate the interview, non-response and partial non-response can be higher than with face to face interviews.

17.17 Telephone interviewing is used in both ABS household and business surveys and may be used in conjunction with face to face interviews. For example, in the Labour Force Survey the first interview is conducted face to face and the remaining interviews are conducted by telephone if the provider agrees.

Computer-assisted interview

17.18 A computer-assisted interview, consists of an interviewer entering the data into a computer as they are provided. This allows some cross checks (referred to as edit checks) to be carried out at the time of the interview, thereby improving data quality. Overall timeliness of data processing is also improved.

SELF-ENUMERATION

17.19 Self-enumeration surveys require the providers to self complete the survey questions. Self-enumeration surveys are most commonly used in business surveys, but can be used in household surveys. Three of the most common self-enumeration methods are dropoff/mail-back, dropoff/pickup and mail-out/mail-back and They are discussed below.

Dropoff/Mail-back and Dropoff/Pickup

17.20 Dropoff/mail-back and dropoff/pickup methods are used in a number of ABS household surveys and provide higher response rates and data quality than postal surveys. In both cases the questionnaire is delivered to respondents by an interviewer who explains the aims of the survey and how to fill out the questionnaire. The questionnaire is left with the respondent to be completed and then is either mailed back or picked up at a later date. An example of a dropoff/pickup survey is the Census of Population and Housing.

Mail-out/mail-back

17.21 Mail-out/mail-back surveys are used most commonly in ABS business surveys. This approach involves mailing questionnaires to respondents with a return-paid envelope so that the respondent can mail back the completed questionnaire. It allows wide geographic areas to be covered at a relatively low cost (compared to personal interviews), and allows access to 'difficult-to-contact' respondents (e.g. where a post office box is the only address provided). It also allows respondents to complete questionnaires in their own time. Another advantage of mail-out/mail-back surveys is that respondents may feel more comfortable providing data directly to the ABS without divulging confidential information to an interviewer. There are some disadvantages with this approach: response rates can be low; there can be delays between the time the questionnaire is sent out and returned; there are limits on the length and complexity of the questionnaire; and it is necessary to have a complete list of addresses for all units in the sample.

DOCUMENTARY SOURCES (ADMINISTRATIVE DATA)

17.22 Existing data, such as administrative data can be used to obtain information about the survey population as a whole and as individual units. The approach is used in some ABS business surveys to collect information about individual units in the survey population. For example, payroll records from some government departments are used in business surveys that collect information on earnings and employment.

17.23 An advantage of using administrative data is that it can save both time and money by removing the need for the ABS to collect the information directly from respondents. Disadvantages of using administrative data are that: often the data quality is below ABS quality standards, requiring substantial manipulation and checking before the data can be used (adding to the expense); the underlying concepts relate to administrative procedures rather than statistical constructs; and sometimes not all the data required for statistical purposes have been collected, or they have not been collected in a manner suitable for the purposes of the ABS.

SAMPLE DESIGN AND SAMPLING TECHNIQUES

17.24 All the ABS labour-related sample surveys referred to in this publication (household and business) use probability sampling techniques, drawing their samples from a population frame. This section briefly defines and explains key concepts and terms related to survey design. Subsequent chapters provide more detail on aspects of survey design that are particular to household surveys (Chapter 18) and business surveys (Chapter 25).

POPULATION

17.25 A survey is concerned with two types of population: the target population, and the survey population. The target population is the group of units about which information is sought and is also known as the scope of the survey. It is the population at which the survey is aimed. The scope should state clearly the units from which data are required and the extent and time covered e.g. households (units) in Australia (extent) in August 2000 (time).

17.26 However, the target population is a theoretical population as there are usually a number of units in the target population which cannot be surveyed. These include units which are difficult to contact and units which are missing from the frame (see 17.28). The survey population is that part of the population that is able to be surveyed and is also called the coverage population.

STATISTICAL UNITS

17.27 Statistical units are used in the design, collection, analysis and dissemination of statistical data. There are several types of units, including: sampling units (the units selected in the sample survey), collection units (the units from which data are collected), reporting units

(the units about which data are collected), and analysis units (the units used for analysis of the data). The units used in a survey may change at various stages in the survey cycle. For example, the Labour Force Survey uses a sample of dwellings (sampling unit) from which information is collected from any responsible adult (collection unit) about each person in the household in scope of the survey (reporting units). The results of the survey may then be analysed for families (analysis unit).

FRAME

17.28 The frame comprises a list of statistical units (e.g. persons, households or businesses) in the population, together with auxiliary information about each unit. It serves as a basis for selecting the sample. Two types of frames are used in ABS labour-related surveys: list based frames and area based frames.

List based frames

17.29 List based frames comprise a list of all sampling units in the survey population. List based frames are commonly used in surveys of businesses. ABS business surveys currently draw their list frames from the ABS Business Register. The ABS Business Register is discussed further in Chapter 25.

Area based frames

17.30 Area based frames comprise a list of non-overlapping geographic areas. These areas may be defined by geographical features such as rivers and streets. They are usually used in household surveys. Once an area is selected, a list is made of the dwellings in the area, and a sample of dwellings selected from the list. An area based frame obviates the need to maintain a complete listing of all dwellings in Australia, leading to cost savings. Examples of geographic areas that may be used to create area frames include: local government areas; census collection districts; and postcodes.

Auxiliary variables

17.31 Auxiliary variables are characteristics of each unit for which information is known on the frame prior to the survey. Auxiliary variables can be used in the sample design to better target the population of interest if the information on the frame is of sufficiently high quality and is correlated with the variables of interest in the survey. They can also be used in the estimation process in conjunction with the survey data.

Frame problems

17.32 For most sampling methodologies, it is desirable to have a complete list from which to select a sample. However, in practice it can be difficult to compile such a complete list and therefore frame bias may be introduced. Frame bias occurs when an inappropriate frame is used or there are problems with the composition of the frame, with the result that the frame is not representative of the target population. Frames become inaccurate for many reasons. One of the most common problems is that populations change continuously, causing frames to become out of date. Frames may also be inaccurate if they are compiled from inaccurate sources. The following are some of the problems that can occur in the composition of frames.

17.33 Undercoverage occurs when some units in the target population that should appear on the frame do not. These units may have different characteristics from those units which appear on the frame, and therefore results from the survey will not be representative of the target population.

17.34 Out of scope units are units that appear on the frame but are not elements of the target population. Selection of a number of out of scope units in the sample reduces the effective sample size, and increases standard errors. Furthermore, out of scope units appearing on the frame may be incorrectly accounted for in the estimation process which may lead to bias in survey estimates.

17.35 Duplicates are units that appear more than once on the frame. The occurrence of duplicates means that the probability of selection of the units on the frame is not as it should be for the respective sample design. In particular, the duplicate units will have more than the correct chance of selection, introducing bias towards the characteristics of these units. Duplicates also increase standard errors.

17.36 Deaths are units that no longer exist in the population but are still on the frame. Deaths have the same impact on survey results as out of scope units.

17.37 The quality of auxiliary variables can affect the survey estimates of the variables of interest through both the survey design and the estimation process.

17.38 The ABS attempts to minimise frame problems and uses standardised sample and frame maintenance procedures across collections. Some of the approaches taken are to adjust estimates using new business provisions (explained further in Chapter 25), and to standardise across surveys the systems for handling estimation, imputation and outliers (explained in Estimation and Weighting).

PROBABILITY SAMPLES

17.39 Probability samples are samples drawn from populations such that every unit in the population has a known, or calculable, non-zero probability of selection which can be obtained prior to selection. In order to calculate the probability of selection, a population frame must be available. The sample is then drawn from this frame. Alternatives to probability samples are samples formed without a frame, such as phone-in polls.

17.40 Probability sampling is the preferred ABS method of conducting major surveys, especially when a population frame is available. Probability samples allow estimates of the accuracy of the survey estimates to be calculated. They are also used in ABS surveys as a means of avoiding bias in survey results. Bias is avoided when either the probability of selection is equal for all units in the target population or, where this is not the case, the effect of non-equal probabilities is allowed for in estimation.

STRATIFIED SAMPLING

17.41 Stratified sampling is a technique which uses auxiliary information available for every unit on the frame to increase the efficiency of a sample design. Stratified sampling involves the division (stratification) of the population frame into non-overlapping, homogeneous (similar) groups called strata, which can be treated as totally separate populations. A sample is then selected independently from each of these groups, and can therefore be selected in different ways for different strata, e.g. some strata may be sampled using 'simple random sampling'

while others may be 'completely enumerated'. These terms are explained below. Stratification variables may be geographical (e.g. State, capital city/balance of State) or non-geographical (e.g. number of employees, industry, turnover).

17.42 All surveys conducted by the ABS use stratification. Household surveys use mainly geographic strata. Business surveys typically use strata which are related to the economic activity undertaken by the business, for example industry and size of the business (the latter based on employment size).

Completely enumerated strata

17.43 Completely enumerated (CE) strata are strata in which information is obtained from all units. Strata that are completely enumerated tend to be those where: each population unit within the stratum is likely to contribute significantly to the estimate being produced (such as strata containing large employers where the estimate being produced is employment); or there is significant variability across the population units within the stratum.

SIMPLE RANDOM SAMPLING

17.44 Simple random sampling is a probability sampling scheme in which each possible sample of the required size has the same chance of selection. It follows that each unit of the population has an equal chance of selection.

17.45 Simple random sampling can involve units being selected either with or without replacement. Replacement sampling allows the units to be selected multiple times, whereas without replacement sampling allows a unit to be selected only once. In general, simple random sampling without replacement produces more accurate results as it does not allow sample to be 'wasted' on duplicate selections. All ABS surveys that use simple random sampling use the 'without replacement' variant. Simple random sampling without replacement is used in most ABS business surveys.

SYSTEMATIC SAMPLING

17.46 Systematic sampling is used in most ABS household surveys, and provides a simple method of selecting the sample. It involves choosing a random starting point within the frame and then applying a fixed interval (referred to as the 'skip') to select members from a frame.

17.47 Information on auxiliary variables can be used in systematic sampling to improve the efficiency of the sample. The units in the frame can be ordered with respect to auxiliary variables prior to calculating the skip interval and starting point. This approach ensures that the sample is spread throughout the range of units on the frame, ensuring a more representative sample with respect to the auxiliary variable.

17.48 Systematic sampling with ordering by auxiliary variables is only useful if the frame contains auxiliary variables about each of the units in the population, and if these variables are related to the variables of interest. The relationship between the variables of interest and the auxiliary variables is often not uniform across strata. Consequently it is possible to design a sample survey with only some of the strata making use of auxiliary variables.

PROBABILITY PROPORTIONAL TO SIZE SAMPLING

17.49 Probability proportional to size sampling is a selection scheme in which units in the population do not all have the same chance of selection. With this method, the larger the unit with respect to some measure of size, the greater the probability that unit will be selected in the sample. Probability proportional to size sampling will lead to unbiased estimates, provided the different probabilities of selection are accounted for in estimation.

CLUSTER SAMPLING

17.50 Cluster sampling involves the units in the population being grouped into convenient clusters, usually occurring naturally. These clusters are non-overlapping, well-defined groups which usually represent geographical areas. The sample is selected by selecting a number of clusters, rather than directly selecting units. All units in a selected cluster are included in the sample.

MULTI-STAGE SAMPLING

17.51 Multi-stage sampling is an extension of cluster sampling. It involves selecting a sample of clusters (first-stage sample) and then selecting a sample of population units within each selected cluster (second-stage sample). The sampling unit changes at each stage of selection. Any number of stages can be employed. The sampling units for any given stage of selection each form clusters of the next-stage sampling units. Units selected in the final stage of sampling are called final-stage units (or ultimate sampling units). The Survey of Employee Earnings and Hours uses multi-stage sampling - businesses (the first-stage units) selected in the survey are asked to select a sample of 'employees' (the final-stage units) using employee payrolls. Household surveys also use multi-stage sampling.

MULTI-PHASE SAMPLING

17.52 Multi-phase sampling involves collecting basic information from a sample of population units, then taking a sub-sample of these units (the second-phase sample) to collect more detailed information. The second-phase sample is selected using the basic information supplied, using the information collected in the first phase, and allows the second-phase sample to be targeted to the specific population of interest. Population totals for auxiliary variables, and values from the first-phase sample are used to weight the second-phase sample for the estimation of population totals.

17.53 Multi-phase sampling aims to reduce sample size and the respondent burden and collection costs while ensuring that a representative sample is still selected from the population of interest. It is often used when the population of interest is small and difficult to isolate in advance, or when detailed information is required. Multi-phase sampling is also useful when auxiliary information is not known for all of the frame units, as it enables the collection of data for auxiliary variables in the first-phase sample.

17.54 The first-phase sample is designed to be large to ensure sufficient coverage of the population of interest, but only basic information is collected. The basic information is then used to identify those first-phase sample units which are part of the population of interest. A sample

of these units is then selected for the second-phase sample. Therefore the sampling unit remains the same for each phase of selection. If multi-phase sampling was not used, detailed information would need to be collected from all of the first-phase sample units to ensure reasonable survey estimates. Therefore, multi-phase sampling reduces the overall respondent burden.

ESTIMATION

17.55 Sample survey data only relate to the units in the sample. Therefore the sample estimates need to be inflated to represent the whole population of interest. Estimation is the means by which this inflation occurs.

17.56 The following section outlines various methods of calculating the population estimates from the sample survey data. It then describes various editing procedures used in labour-related statistics to improve the population estimates.

WEIGHTING

17.57 Estimation is essentially the application of weights to the individual survey, and summing these weighted records to estimate totals. The value of these weights is determined with respect to one or more of the following three factors:

- the probability of selection for each survey unit (probability weighting);
- adjustment for non-response to correct for imbalances in the characteristics of responding sample units (post-stratification); and
- adjustments to agree with known population totals for auxiliary variables - to correct for further imbalances in the characteristics of the selected sampled units (post-stratification, ratio estimation, calibration).

17.58 Weights are determined using formulae (estimators) of varying complexity.

NUMBER-RAISED ESTIMATION

17.59 Number-raised weights are given by N_h/n_h (where N_h is the total number of units in the population for the stratum, and n_h is the number of responding units in the sample for that stratum). The weight assigned to each survey unit indicates the number of units in the target population that the survey unit is meant to represent. For example, a survey unit with a weight of 100 represents 100 units in the population. Each survey unit in a stratum is given the same weight. Number-raised weights can only be used to weight simple random samples.

17.60 Advantages of number-raised estimation are: it does not require auxiliary data; it is unbiased; and the accuracy of the estimates can be calculated relatively simply. However, number-raised estimation is not as accurate as some other methods with the same overall sample size.

RATIO ESTIMATION

17.61 Ratio estimation involves the use of known population totals for auxiliary variables to improve the weighting from sample values to population estimates. It operates by comparing the survey sample estimate for an auxiliary variable with the known population total for the same variable on the frame. The ratio of the sample estimate of the auxiliary variable to its population total on the frame is used to adjust the sample estimate for the variable of interest.

17.62 The ratio weights are given by X/x (where X is the known population total for the auxiliary variable, and x is the corresponding estimate of the total based on all responding units in the sample). These weights assume that the population total for the variable of interest will be estimated by the sample equally as well (or poorly) as the population total for the auxiliary variable is estimated by the sample.

17.63 Ratio estimation can be more accurate than number-raised estimation if the auxiliary variable is highly correlated with the variable of interest. However it is subject to bias, with the bias increasing for smaller sample sizes and where there is lower correlation between the auxiliary variable and the variable of interest.

POST-STRATIFICATION

17.64 Post-stratification estimation also involves the use of auxiliary information to improve the weighting from sample values to population estimates. Subgroups of the survey sample units are formed based on auxiliary variables after the survey data have been collected. Estimates of subgroup population sizes (based on probability weighting) are compared with known subgroup population sizes from independent sources. The ratio of the two population sizes for each subgroup is used to adjust the original estimate for the variable of interest (based on probability sampling).

17.65 Post-stratification is used to refine the estimation weighting process by correcting for sample imbalance and, assuming that the survey respondents are representative of missing units, correcting for non-response. For example, in the Labour Force Survey, the sample is post-stratified by age, sex, capital city/rest of State, and State/Territory of usual residence. Estimates of the number of people in these subgroups based on Census data are then compared to the estimates based on the survey sample to give the post-stratification weights.

CALIBRATION

17.66 Calibration essentially uses all available auxiliary information to iteratively modify the original weights (based on number-raised weights). The new weights ensure that the sample estimates are consistent with the various auxiliary information. Both post-stratification and ratio estimation can be used as part of the calibration weighting process. Calibration is useful if the survey sample estimates the need to match the unit totals for a number of different subgroups or for more than one auxiliary variable. It is mostly used in Special Social Surveys. For example, the Survey of Employment and Unemployment Patterns was weighted so that the survey estimates aligned with both population estimates based on Census data and estimates of the number of people 'employed', 'unemployed' and 'not in the labour force' from the Labour Force Survey.

EDITING

17.67 Editing is the process of correcting data suspected of being wrong, in order to allow the production of reliable statistics. The aims of editing are:

- to ensure that outputs from the collection are mutually consistent: for example, two different methods of deriving the same value should give the same answer;
- to correct for any missing data;
- to detect major errors, which could have a significant effect on the outputs; and
- to find any unusual output values and their causes.

17.68 The purpose of editing is to correct non-sampling errors such as those introduced by misunderstanding of questions or instructions, interviewer bias, miscoding, non-availability of data, incorrect transcription, non-response, and non-contact. Non-response occurs when all (total non-response) or part (partial non-response) of a questionnaire is not completed by the respondent. Non-response is a serious problem and can cause bias in the sample based estimates.

17.69 Editing is also used to identify outliers. The statistical term 'outlier' has several definitions depending on the context in which it is used. Here it is used loosely to describe extreme values that are verified as being correct, but are very different from the values reported by similar units, and are expected to occur only very rarely in the population as a whole. In practice, an outlier is usually considered to be a unit that has a large effect on survey estimates of level, on estimates of movement, or on the sampling variance. This may occur because the unit is not similar to other units in the stratum - for example, if its true employment is much greater than the frame employment. It may also occur when an extreme value is recorded for some variable from an otherwise ordinary sampling unit. The presence of outliers in the sample, particularly in strata with small sampling fractions (footnote 1), may result in grossly inadequate estimates, unless they are treated in a special way.

Imputation

17.70 Imputation involves supplying a value for a non-responding unit, or to replace 'suspect' data. Imputation methods fall into three groups:

- the imputed value may be derived from other information supplied by the respondent;
- the imputed value may be derived from information supplied by other similar respondents in the current survey; and
- the values supplied by the respondent in previous surveys may be modified to derive a value.

Three of the imputation methods used in labour-related surveys are described below.

17.71 Deductive imputation involves correcting a missing or erroneous value by using other information that reveals the correct answer. For example, a response of 18,000 has been given where respondents have been asked to reply in '\$000s' and where the expected range of responses is 13-21. A quick examination of other parts of the form shows that \$18,000 is very likely the amount actually spent by the respondent, so 18,000 is 'corrected' to 18.

17.72 Central-value imputation involves replacing a missing or erroneous item with a value considered to be 'typical' of the sample or sub-sample concerned. Live respondent mean is an example of central-value imputation. This technique involves calculating the average stratum value for the data item of interest across all responding live units in the stratum, and assigning this value to all live non-responding units in the stratum.

17.73 Cold-deck imputation involves using previous survey data to amend items which fail edits. It may involve copying data from the previous survey cycle to the current cycle. One specific example of this type of imputation is Beta imputation, which involves estimating missing values by applying an imputed growth rate to the most recently reported data for these units, provided that data have been reported in either of the two previous periods.

Adjustments for outliers

17.74 When adjusting for outliers, a compromise is always necessary between the variability and bias associated with an estimate. There are two methods available for dealing with outliers. Historically the ABS has used the 'surprise outlier' approach for most business surveys, but over time has gradually changed over to using 'winsorization'.

Surprise outlier approach

17.75 Generally, this technique is used to deal with a selected unit which is grossly extreme for a number of variables. The approach treats each outlier as if it were the only extreme unit in the stratum population. The outlier is given a weight of one, as if it had been selected in a CE stratum. As a result of the outlier's movement to the CE stratum, the weight for units in the outlier's selection stratum has to be recalculated, as the population and sample size have effectively been reduced by one. This has the effect that the other population units which would have been represented by the outlier are now represented by the average of the other units in the stratum. Therefore the choice of treatments for a suspected outlier using the surprise outlier approach are either for it to represent all of the units it would normally represent or to represent no units other than itself. It is preferable to set a maximum number of surprise outliers which can be identified in any one survey.

Winsorizing technique

17.76 This technique is a more flexible approach. Here a value is considered to be an outlier if it is greater than a predetermined cutoff. The effect of the outlier on the estimates is reduced by modifying its reported value.

17.77 On application of the winsorization formula, sample values greater than the cutoff are replaced by the cutoff plus a small additional amount. The additional amount is the difference between the sample value and the cutoff, multiplied by the stratum sampling fraction. Thus winsorization has most impact in strata with low sampling fractions, and the impact decreases as sampling fractions increase. Effectively, winsorization results in the outlier only representing itself, with the remaining population units that would have been represented by the outlier being instead represented by the cutoff.

TIME SERIES ESTIMATES

17.78 Time series are statistical records of various activities measured at regular intervals of time, over relatively long periods. Data collected

in irregular surveys do not form time series. The following section outlines the various elements of time series and outlines the ABS method of calculating seasonally adjusted and trend estimates.

17.79 ABS time series statistics are published in three forms: original, seasonally adjusted and trend.

17.80 Original estimates are the actual estimates the ABS derives from the survey data or other non-survey sources. Original estimates are composed of trend behaviour, systematic calendar related influences and irregular influences.

17.81 Systematic calendar related influences operate in a sustained and systematic manner that is calendar related. The two most common of these influences are seasonal influences and trading day influences.

17.82 Seasonal influences occur for a variety of reasons.

- They may simply be related to the seasons and related weather conditions such as warmth in summer and cold in winter. Weather conditions that are out of character for a particular season, such as snow in summer, would appear as irregular, not seasonal, influences.
- They may reflect traditional behaviour associated with various social events (e.g. Christmas and the associated holiday season).
- They may reflect the effects of administrative procedures (e.g. quarterly provisional tax payments and end of financial year activity).

17.83 Trading day influences refer to activity associated with the number and types of days in a particular month, as different days of the week often have different levels of activity. For instance, a calendar month typically comprises four weeks (28 days) plus an extra two or three days. If these extra days are associated with high activity, then activity for the month overall will tend to be higher.

17.84 Seasonal and trading day factors are estimates of the effect that the main systematic calendar related influences have on ABS time series. These evolve to reflect changes in seasonal and trading patterns of activity over the life of the time series, and are used to remove the effect of seasonal and trading day influences from the original estimates.

17.85 Seasonally adjusted estimates are derived by removing the systematic calendar related influences from the original estimates. Seasonally adjusted estimates capture trend behaviour, but still contain irregular influences that can mask the underlying month to month or quarter to quarter movement in a series. Seasonally adjusted estimates by themselves are only relevant for sub-annual collections.

17.86 Irregular influences are short term fluctuations which are unpredictable and hence are not systematic or calendar related. Examples of irregular influences are those caused by one-off effects such as major industrial disputes or abnormal weather patterns. Sampling and non-sampling errors that behave in an irregular or erratic fashion with no noticeable systematic pattern are also irregular influences.

17.87 Trend estimates are derived by removing irregular influences from the seasonally adjusted estimates. As they do not include systematic, calendar related influences nor irregular influences, they are a measure of the underlying behaviour of the series.

CALCULATION OF TREND ESTIMATES

17.88 Trend estimates are produced by smoothing the seasonally adjusted series using a statistical procedure based on Henderson moving averages. At each survey cycle the trend estimates are calculated using a centred x-term Henderson moving average of the seasonally adjusted series. The moving averages are centred on the point in time at which the trend is being estimated. The number of terms used to calculate the trend estimates varies across surveys. Generally, ABS monthly surveys use a 13-term Henderson moving average and quarterly surveys use a 7-term Henderson moving average.

17.89 Estimates for the most recent survey cycles cannot be calculated using the centred moving average method as there are insufficient data to do so. Instead, alternative approaches that approximate the smoothing properties of the Henderson moving average are used - such as asymmetric averages. This can lead to revisions in the trend estimates for the most recent survey cycles until sufficient data are available to calculate the trend using the centred Henderson moving average. Revisions of trend estimates will also occur with revisions to the original data and re-estimation of seasonal adjustment factors.

RELIABILITY OF ESTIMATES

17.90 The accuracy of an estimate refers to how close that estimate is to the true population value. Where there is a discrepancy between the value of the sample estimate and the true population value, the difference between the two is referred to as the 'error of the sampling estimate'. The total error of the sampling estimate results from two types of error:

- sampling error - errors which occur because data were obtained from only a sample rather than the entire population; and
- non-sampling error - errors which occur at any stage of a survey and can also occur in censuses.

17.91 All ABS data are subject to one or both of these types of errors. The following section provides further information on both sampling and non-sampling error and describes various measures of each.

SAMPLING ERROR

17.92 Sampling error equals the difference between the estimate obtained from a particular sample and the value that would be obtained if the whole survey population were enumerated. It is important to consider sampling error when publishing survey results, as it gives an indication of the accuracy of the estimate and therefore reflects the importance that can be placed on interpretations. For a given estimator and sample design, the expected size of the sampling error is affected by how similar the units in the target population are and the sample size.

Variance

17.93 Variance is a measure of sampling error that is defined as the average of the squares of the deviation of each possible estimate (based on all possible samples for the same design) from the expected value. It gives an indication of how accurate the survey estimate is likely to be, by measuring the spread of estimates around the expected value. For probability sampling, an estimate of the variance can be

calculated from the data values in the particular sample that is generated.

17.94 Methods used to calculate estimates of variance in ABS labour-related surveys are outlined below.

- Jack-knife - this method starts by dividing the survey sample into a number of equally sized groups (replicate groups), containing one or more units. Pseudo-estimates of the population total are then calculated from the sample by excluding each replicate group in turn. The jack-knife variance is derived from the variation of the respective pseudo-estimates around the estimate based on the whole sample. This method is used in a number of household surveys, including the Labour Force Survey (from November 2002), Supplementary surveys (from August 2005), the Multi Purpose Household Survey (MPHS) and some labour-related business surveys.
- Ultimate cluster variance - this method is used in some multi-stage sampling schemes (see previous explanation of multi-stage sampling), and involves using the variation in estimates derived from the first-stage units to estimate the variance of the total estimate. This method is used in the Survey of Employee Earnings and Hours.
- Split halves - this method involves dividing the sample into half and, from each half, obtaining an independent estimate of the total. The variance estimate is produced using the square of the difference of these estimates. Variations of the split halves method for calculating variance estimates were used in a number of household surveys including the Labour Force Survey prior to November 2002 and Supplementary surveys prior to August 2005.

17.95 The variances indicated in ABS household survey publications are generally based on models of each survey's variance. The variances for a range of estimates are calculated using one of the above methods and a curve is fitted to the results. This curve indicates the level of variance which could be expected for a particular size of estimate.

Standard Error (SE)

17.96 The most commonly used measure of sampling error is called the standard error. The standard error is equal to the square root of the variance. An estimate of the standard error can be derived from either the population variance (if known) or the estimated variance from the sample units. Any estimate derived from a probability based sample survey has a standard error associated with it (called the standard error of the estimate). The main features of standard errors are set out below.

- Standard errors indicate how close survey estimates are likely to be to the expected population values that would be obtained from a census conducted under the same procedures and processes.
- Standard errors provide measures of variation in estimates obtained from all possible samples under a given design.
- Small standard errors indicate that variation in estimates from repeated samples is small, and it is likely that sample estimates will be close to the true population values, regardless of the sample selected.
- Estimates of standard errors can be obtained from any probability sample - different random samples will produce different estimates of standard errors.
- Standard errors calculated from survey samples are themselves estimates and thus also subject to sampling error.
- When comparing survey estimates, statements should be made about the standard errors of those estimates.
- Standard errors can be used to work out confidence intervals. This concept is explained below.

Confidence Interval (CI)

17.97 A confidence interval is defined as an interval, centred on the estimate, with a prescribed level of probability that it includes the true population value (if the estimator is unbiased) or the mean of the sampling distribution (if the estimator is biased). Estimates from ABS surveys are usually unbiased.

17.98 Estimates are often presented in terms of a confidence interval. Most commonly, confidence intervals are constructed for 68%, 95%, and 99% levels of probability. The true value is said to have a given probability of lying within the constructed interval. For example:

- 68% chance that the true value lies within 1 standard error of the estimate (2 chances in 3).
- 95% chance that the true value lies within 2 standard errors of the estimate (19 chances in 20).
- 99% chance that the true value lies within 3 standard errors of the estimate (99 chances in 100).

17.99 Confidence intervals are constructed using the standard error associated with an estimate. For example, a 95% confidence interval is equivalent to the survey estimate plus or minus two times the standard error of the estimate. Therefore, if the sample survey estimate of a variable was 100 and the estimate had a standard error of 10, the 95% confidence interval could be expressed: "we are 95% confident that the true value of the variable of interest lies within the interval [80, 120]".

Relative Standard Error (RSE)

17.100 Another measure of sampling error is the relative standard error (RSE). This is the standard error expressed as a percentage of the estimate. Since the standard error of an estimate is generally related to the size of the estimate, it is not possible to deduce the accuracy of the estimate from the standard error without also referring to the size of the estimate. The relative standard error avoids the need to refer to the estimate, since the standard error is expressed as a proportion of the estimate. RSEs are useful when comparing the variability of population estimates of different sizes. They are commonly expressed as percentages.

17.101 Very small estimates are subject to high RSEs which detract from their usefulness. In ABS labour-related statistical publications, estimates with an RSE greater than 25% but less than 50% have an asterisk (*) displayed beside the estimate, indicating they should be used with caution. Estimates with an RSE greater than 50% have two asterisks (**) displayed beside the estimate, indicating they are so unreliable as to detract seriously from their value for most reasonable uses.

NON-SAMPLING ERROR

17.102 Non-sampling error refers to all other errors in the estimate. Non-sampling error can be caused by non-response, badly designed questionnaires, respondent bias, interviewer bias, collection bias, frame deficiencies and processing errors. It is often difficult and expensive to quantify non-sampling error.

17.103 Non-sampling errors can occur at any stage of the process, and in both censuses and sample surveys. Non-sampling errors can be grouped into two main types: systematic and variable. Systematic error (called bias) makes survey results unrepresentative of the population value by systematically distorting the survey estimates. Variable error can distort the results on any given occasion, but tends to balance out

on average over time.

Reducing non-sampling error

17.104 Every effort is made to minimise non-sampling error in ABS surveys at every stage of the survey, through careful design of collections, and the use of rigorous editing and quality control procedures in the compilation of data. Some of the approaches adopted are listed below.

- Reducing frame deficiencies - refer to paragraphs 17.32 to 17.38 above.
- Reducing non-response - non-response results in bias in the estimate because it is possible the non-respondents have different characteristics to respondents, leading to an under-representation of the characteristics of non-respondents in the sample survey estimate. The ABS pursues a policy of intensive follow up of non-respondents. This includes multiple visits or telephone calls in an attempt to contact respondents, and letters requesting compliance with the survey. Partial non-response is also followed up with respondents.
- Reducing instrument errors - these errors relate to poor questionnaire design, leading to questions which are not easily understood by respondents, and hence incorrect responses. This is particularly relevant for household surveys. The ABS ensures that all household survey questionnaires are carefully tested using cognitive testing, and dress rehearsals of the survey before it is officially conducted. New business survey questionnaires and additional questions in business surveys are also rigorously tested before they are introduced.

Measures of non-sampling error

17.105 Non-sampling error is difficult to quantify; however, an indication of the level of non-sampling error can be determined from a number of quality measures. These include:

- Response rates - the number of responding units in a survey expressed as a proportion of the total number of units selected (excluding deaths). Response rates can also be calculated for individual questions within a survey.
- Imputation rates - the number of responses which need to be imputed expressed as a proportion of the total number of responses.
- Coverage rates - an estimate of the proportion of units in the target population which are not covered by the frame.
- Any Responsible Adult rates - the number of responding units in a survey for which information was supplied by a responsible adult rather than personally, expressed as a proportion of the total number of responding units. Any Responsible Adult rates can only be calculated for household surveys. For further information on personal interview and Any Responsible Adult collection methodologies, see paragraphs 17.11 to 17.12.

OUTPUT

17.106 The ABS's objectives in dissemination are to ensure widespread availability of information.

17.107 To meet the ABS's 'public good' obligations, the main findings of statistical collections and statistical reports on matters of public interest are made available free of charge to the community via the media. ABS publications are made available free to the general public. In addition, the ABS conducts a Library Extension Program within 515 libraries participating throughout Australia. These libraries are provided with free ABS publications and some electronic services to meet the needs of their local communities. Free access is also available to statistics on the ABS website (www.abs.gov.au).

17.108 A number of international agencies, including the International Monetary Fund and the ILO, have put forward a range of proposals and guidelines for the dissemination of data including: the methodology of their collection and compilation, and evaluation as to their accuracy; relevance to the phenomena measured; and quality of the output. In particular, the ILO at its 1998 ICLS endorsed a set of 20 guidelines concerning dissemination practices for labour statistics. The ICLS Guidelines can be found on the ILO website at the following address: <http://www.ilo.org/public/english/bureau/stat/standards/guidelines/index.htm>. The ILO guidelines, and a comparison of these guidelines with ABS practice, are contained in the Appendix.

DISSEMINATION MEDIA

17.109 The ABS uses a range of media for the dissemination of labour statistics but, in line with clients' preferences, publications are the prime release medium and are available in both printed and electronic form.

17.110 In addition to publications, a range of other dissemination media are used in the release of labour statistics. The ABS produces, free of charge, a quick reference information service for basic statistical information, including information on labour statistics. The service operates in response to telephone calls, email, correspondence and personal visits. The ABS also offers information consultancy services on a fee for service basis, for clients requesting more complex information.

17.111 Confidentialised Unit Record Files are available for some labour collections. These files contain the responses received for each unit in the survey, with any identifying information removed or perturbed to ensure that no respondents can be identified from the dataset.

CONFIDENTIALITY

17.112 All releases of data from the ABS are confidentialised to ensure that no unit (e.g. person or business) is able to be identified. The ABS applies a set of rules, concerning the minimum number of responses required to contribute to each data cell of a table, and the maximum proportion that any one respondent can contribute to a table cell, to ensure that information about specific units cannot be derived from published survey results.

17.113 In some instances it is not possible to confidentialise responses from businesses that contribute substantially to a data cell. In this case, agreement is sought from the business for their data to still be published. If agreement is not reached, all affected data cells are suppressed.

DATA COMPARABILITY OVER TIME

17.114 The ABS aims to produce consistent and comparable time series of data by minimising changes to ongoing surveys. However, the frequency of collection, collection and sample methods, concepts, data item definitions, classifications and time series analysis techniques are all subject to maintenance, change and/or development.

17.115 The desire for comparable data must be balanced with a requirement for data to remain relevant. In addition, sound survey practice requires careful and continuing maintenance and development to ensure the integrity of the data and the efficiency of the collection. Some survey features are reviewed regularly, while others are changed only as the need arises. For example, the sample design for the Labour Force Survey is, in part, based on information from the Population Census (conducted every five years), and is therefore reviewed on a five-yearly cycle. Updates to the seasonally adjusted and trend series resulting from time series analysis are also changed regularly.

17.116 On the other hand, irregular changes to questionnaires may arise from:

- changes in international recommendations (these usually occur infrequently);
- changes in local needs or conditions;
- reviews of ABS data standards, such as changes to the Industry and Occupation classifications;
- changes to population frames, such as the Business Register; and
- developments in ABS collection methods, such as the introduction of telephone interviewing or computer assisted personal interviewing.

17.117 Changes to ABS surveys which affect the comparability of data over time are usually documented in the explanatory notes of survey publications. Changes to individual labour-related surveys which have occurred to date are also summarised in subsequent chapters.

FURTHER INFORMATION

17.118 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email labour.statistics@abs.gov.au.

FOOTNOTES

1. The sampling fraction for a stratum is defined as n_h/N_h (where n_h is the number of units selected in the stratum and N_h is the size of the population of the stratum). [<back](#)

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Chapter 18. Methods Used in ABS Household Surveys

CHAPTER 18. METHODS USED IN ABS HOUSEHOLD SURVEYS

INTRODUCTION

18.1 This chapter provides an overview of the survey methodology used in ABS household surveys. It should be used in conjunction with Chapter 17, which provides a broad overview of ABS survey methodology, and Chapters 19-24 which provide more detail on aspects of survey design that are particular to specific labour-related household collections.

SCOPE AND COVERAGE

18.2 The scope of ABS household surveys varies from survey to survey. The Census of Population and Housing has the broadest scope of all ABS household collections and aims to collect information from all persons residing in Australia on Census night. The scope of the Labour Force Survey (LFS) is the civilian population aged 15 years and over, while the Labour Force Supplementary Surveys vary their scope across surveys and is generally narrower than that of the LFS. The target population of Special Social Surveys (SSS) also vary.

18.3 Practical collection difficulties, low levels of response and the small numbers involved have resulted in the exclusion of persons living in remote and sparsely settled parts of Australia from a number of household surveys (exceptions include: the Census of Population and Housing; the LFS; and SSSs whose target population includes persons living in remote and sparsely settled areas). The exclusion of these persons has only a minor impact on any estimates produced for individual states and territories, with the exception of the Northern Territory, where such persons account for about 23% of the population.

18.4 Some household surveys exclude all persons living in special dwellings from their scope (certain SSSs). Special dwellings include hotels, motels, hospitals, prisons and boarding houses. Other household surveys exclude certain types of persons living in special dwellings: for example, institutionalised persons (footnote 1) and boarding school pupils (footnote 2) are excluded from the scope of most supplementary surveys.

18.5 Coverage rules are generally applied in all household surveys to ensure that each person is associated with only one dwelling, and hence has only one chance of selection. The chance of a person being enumerated at two separate dwellings in the one survey is considered to be negligible. Hence, strict coverage rules are consistently applied to ensure persons are enumerated at only one dwelling.

COLLECTION METHODOLOGY

18.6 A number of collection methods are used in household surveys, and some surveys use more than one method. The most common method used is computer assisted interview, conducted either face-to-face or over the telephone. Telephone interview is used extensively in the LFS and the supplementary surveys; face-to-face interviewing is used extensively in SSSs. Personal interviewing is generally used in SSSs, while Any Responsible Adult (ARA) interviewing is generally used in the LFS and supplementary surveys. Self-enumeration and administrative data sources are also used, particularly to collect sensitive data or to supplement the data collected by interview. The LFS commenced a trial of on-line electronic data collection (self enumeration) in late 2012 using one rotation group. Refer to Chapter 17 for further explanation of different collection methods.

18.7 Intensive follow up procedures for non-response are in place for household surveys. For both face-to-face interviews and telephone interviews, interviewers make a number of attempts to contact households at different times of the day and on different days during the week. For providers unable to be contacted by telephone, a face-to-face visit is attempted. If the provider can still not be contacted within the survey period after repeated attempts, and the dwelling has been verified as not vacant, the dwelling is listed as a non-contact.

SAMPLE DESIGN

18.8 With the exception of the Census of Population and Housing, most ABS household surveys use probability sample designs, drawing their sample from the Population Survey Master Sample. The Population Survey Master Sample is drawn from the Population Survey Framework. It is designed to meet the needs of the various types of ABS household surveys including the LFS and its supplementary topics, as well as for SSS.

POPULATION SURVEY FRAMEWORK

18.9 The Population Survey Framework is composed of three components: the private dwelling framework, the special dwelling framework and the Indigenous Community Framework (ICF). These three frames are non-overlapping and therefore enable the selection of samples that represent the Australian population.

Private dwelling framework

18.10 The private dwelling framework is a list of all census collection districts (CDs) in Australia. There are approximately 36,000 CDs on the framework, with most CDs containing around 250 private dwellings. For most areas, CDs are also the Primary Sampling Units (PSUs) used in sample selection for the Population Survey Master Sample. However in areas with low population density (where CDs contain smaller numbers of private dwellings), PSUs are instead formed by grouping (or pooling) neighbouring CDs. There are some 30,000 PSUs on the framework. Samples of private dwellings for use in household surveys are obtained by selecting a sample of PSUs, then selecting a sample of dwellings within those PSUs. By identifying households in dwellings (footnote 3), and persons within households, a sample of persons in private dwellings is obtained.

Special dwelling framework

18.11 The special dwelling framework is a list of 'special' dwellings, from which samples of special dwellings and their residents can be selected. Special dwellings are establishments which provide predominantly short-term accommodation for communal or group living and often provide common eating facilities. They include hotels, motels, hostels, hospitals, religious institutions providing accommodation, educational institutions providing accommodation, prisons, boarding houses, short-stay caravan parks, and may include some Aboriginal and Torres Strait Islander communities that are not on the Indigenous Communities Framework. Some special dwellings are designed for a particular purpose (e.g. hospitals) and, as such, provide accommodation for specific groups of people. Special dwellings each comprise a number of dwelling units. Currently there are some 26,000 special dwellings on the frame.

18.12 The framework also contains information about the occupancy of each special dwelling as it was on Census night in 2006.

Indigenous Communities Framework

18.13 The ICF contains all CDs with an identified indigenous population of greater than 75% of the total population. These CDs are classified differently from the remaining CDs on the frame ensuring that an adequate sample of Indigenous dwellings are drawn while also allowing for special enumeration procedures within these areas. Communities within the ICF are separated into Main Communities (discrete Indigenous community with an estimated population of 40 or more) and Outstations (discrete Indigenous community with an estimated population of less than 40 and linked to a larger Main Community). There are approximately 360 CDs and 1000 Indigenous communities on the ICF.

Stratification

18.14 The private dwelling framework and the special dwelling framework are divided (stratified) into groups (strata) with similar characteristics. The stratification used in each framework is described below.

Private dwelling framework

18.15 Prior to stratification, CDs that fall into the ICF are removed from the private dwelling framework. The remaining PSUs on the private dwelling framework are stratified geographically. Strata are formed by initially dividing Australia into geographic regions, termed sample design regions, within each state/territory which broadly correspond to Statistical Divisions or Subdivisions. There are approximately 100 regions in the framework. These regions are created to meet the requirements of dissemination, and conform to Australian Standard Geographic Classification (ASGC) boundaries. Strata are generally formed by combined divisions of these sample design regions, called Statistical Local Area (SLA) localities, that are of the same type within each sample design region. The type of an SLA locality is defined by a combination of its dwelling density and its Accessibility/Remoteness Index of Australia (ARIA) score. Broadly, SLA localities can fall into one of the following categories :

- Self-Representing Area (SRA): All metropolitan areas and those expecting at least 50 dwelling selections per 4000 square kilometres
- Least Remote: Non-SRA area defined as having an ARIA score less than 5.95.
- Remote: Non-SRA area defined as having an ARIA score greater than or equal to 5.95 but less than 10.5.
- Very Remote: Non-SRA area defined as having an ARIA score greater than or equal to 10.5.

Special dwelling framework

18.16 The special dwelling framework is also stratified geographically, though at a broader level than the private dwelling framework. In many cases the demographic, social and labour force characteristics of the occupants of special dwellings are not typical of the population residing in private dwellings, and therefore it is necessary to sample special dwellings separately by placing them in separate strata within each geographic (sample design) region. This provides for more effective samples of persons within special dwellings and private dwellings, and the flexibility to select some samples which exclude all or some special dwellings, or to select samples in which special attention is paid to persons residing in particular special dwellings.

Indigenous Communities Framework

18.17 Communities on the ICF are stratified geographically by state. Finer level stratification for the ICF was not feasible as the number of CDs in each state was not sufficient to enable the creation of multiple strata within any state/territory.

POPULATION SURVEY MASTER SAMPLE

18.18 As discussed above, the Population Survey Framework is used to select a sample which forms the Population Survey Master Sample. The Population Survey Master Sample comprises a sample of PSUs taken from the private dwelling framework, special dwellings, and Indigenous communities from the Indigenous Communities Framework. Most household surveys conducted by the ABS use samples drawn from the Population Survey Master Sample.

18.19 To satisfy the varying sampling and collection requirements of the many surveys using the Population Survey Master Sample, the sample has been designed to be as flexible as possible. Although the LFS, SSS and other ABS household surveys all have separate samples of dwellings, they are all selected from the Population Survey Master Sample using the same procedures. In many cases, much of the field work involved in setting up the sample is common to several surveys.

18.20 The Population Survey Master Sample is reselected and redesigned every five years following the Census of Population and Housing (see paragraph 18.41).

Sample design

18.21 A multistage (footnote 4) area sample design is used to draw the sample of private dwellings from the list of PSUs on the private dwelling framework. For most areas there are three stages of sample selection: the first stage involves the selection of a sample of PSUs (each PSU generally equates to a CD); the second involves the selection of blocks within the selected PSUs; and the third involves the selection of dwellings within the selected blocks. However, for areas in the ex-metropolitan non-SRA strata (i.e. least remote, remote and very remote areas) there are four stages to sample selection: the first stage involves the selection of a sample of PSUs (each PSU is a group of contiguous CDs); the second involves the selection of a sample of CDs from the selected PSUs; the third involves the selection of blocks within the selected CDs; and the fourth involves the selection of dwellings within the selected blocks.

18.22 The use of cluster sampling ensures that the 'final sampling units', i.e. the dwellings selected in the sample, form groups within which the dwellings are close together. This reduces the cost of compiling dwelling lists, and the amount of interviewer travel between selected dwellings. Highly clustered samples, where a large number of dwellings are selected from each of a small number of small areas, produce the lowest operational costs, but the results are less reliable and less representative of the population at large (i.e. have higher standard errors). A key feature of the design is achieving an acceptable balance between cost and accuracy.

18.23 A multistage design is also used to draw the sample of special dwellings from the special dwelling framework. A sample of special dwellings is selected at the first stage and dwelling units (rooms, beds, caravan sites etc.) at the second stage.

18.24 As with private and special dwellings, a multistage design is used to draw the sample of Indigenous communities from the ICF. A sample of Main Communities is selected at the first stage, and at the second stage a sample of outstations associated with the selected Main Communities are taken. Each selected outstation is then completely enumerated. A list is maintained of non-community dwellings within the CDs associated with each selected Main Community. These non-community dwellings are turned into clusters according to the number of clusters in the Main Community. A cluster sample is then taken of these non-community dwellings. Special dwellings in the selected CDs are regarded as non-community dwellings within the ICF.

Sample allocation

18.25 The allocation of sample between the states is a compromise between accurate national estimates and useable estimates for the smaller states. As a result, the smaller states (and the territories) have relatively high sampling fractions. The sampling fraction is uniform within states, reflecting the fact that, at the time the methodology was originally devised the state was the smallest geographic area for which estimates were usually published. Some allowance for the higher costs of sampling in non-metropolitan areas is made in the increased clustering of the sample in those areas.

Sample selection

18.26 **Systematic sampling** is used as the selection method for private dwelling, special dwelling and Indigenous community samples. Geographic location is used as the ordering variable for this systematic selection.

Private dwellings

18.27 As discussed in paragraph 18.21, for most areas there are three stages to sample selection. At the first stage, PSUs are selected systematically with probability proportional to size (in terms of number of dwellings) and drawn independently from within each state by area type. At the second stage, blocks of 25-50 dwellings are formed and two blocks are selected, again with probability proportional to size. One block is used for the LFS sample and the other for a parallel sample. The parallel sample is used for the SSS, and for other household surveys where probability based samples are required. At the third stage, all dwellings in the selected blocks are listed and a 'cluster' of dwellings - comprising the final selection units - is selected using systematic random sampling. This process limits the need for a listing of dwellings to only those in the selected blocks.

18.28 For private dwellings, the selection of sample units at each stage (other than the last) results in a probability of selection proportional to the approximate number of dwelling units the CDs or blocks contain. At the last stage, in which dwellings are selected, each dwelling within a selected block has the same chance of selection.

18.29 The sampling fractions and selection procedures result in a self-weighting sample which guarantees every dwelling in the same state or territory the same chance of selection.

Special dwellings

18.30 A systematic sample of Special Dwellings (SD) is selected from the special dwelling list, with probability proportional to size. The SDs are sorted by region, PSO type, area type and descending PSO occupancy. A systematic probability proportional to size sample of SD's is selected from the SD list independently within each state. Within states, SDs with a measure of size greater than 4 times the state skip interval are selected with certainty and placed at the top of the list. In least remote, remote and very remote areas, the recruitment of interviewers is difficult and the travel costs are high. Therefore, SDs in least remote, remote and very remote strata are selected only if they

lie in a PSU selected in the PD sample or in a least remote urban PSU adjacent to a selected least remote rural PSU. This is known as "urban rural association". Within selected SDs, only usual residents (UR) are enumerated.

18.31 Average occupancy is used as the 'measure of size' of the special dwelling for selection purposes.

Indigenous Communities

18.32 The selection methodology for Indigenous Communities involves forming 'sets', comprising each Main Community and its associated outstations. At the first stage, Main Communities are selected systematically with probability proportional to size of the 'set' and is referred to as the 'measure of size'. This selection methodology gives bigger 'sets', for which a reasonable workload for the set is assured, more chance of being selected.

18.33 At the second stage, a systematic sample is taken of the outstations associated with each selected Main Community. All dwellings within each selected outstation are completely enumerated. All outstations within a set have an equal probability of selection.

18.34 The measure of size used in the first stage is dependent upon the number of dwellings in the Main Community, as well as the number of 'live' outstations associated with it. A 'live' outstation is defined as an outstation that was populated at the time of the 2001 Census of Population and Housing, or Community Housing and Infrastructure Needs Survey (CHINS) 2001 (if no Special Indigenous Form (SIF) was required). The selection strategy puts an upper limit of two 'live' outstations selected per Main Community.

18.35 Once the measure of size is determined, it becomes the basis for determining the number of clusters formed from both the Main Community and the non-community dwellings. Therefore, the number of non-community dwelling clusters within each 'set' is equal to the measure of size for that 'set'. Clusters are selected using the same random start as that for the Main Community and rotated the same as the clusters for the Main Community, therefore systematic sampling is also used for the selection of the non-community dwelling clusters within the CDs associated with the Main Community in the selected 'set'.

18.36 This selection methodology applied to the ICF ensures that every person on the frame has the same chance of being selected. It is called Equal Probability of Selection (EPS). This also holds for the selections from the PD frame.

Adjusting for growth

18.37 The Population Survey Master Sample is reselected once every five years (see paragraph 18.40), with the sample being used up progressively by ABS household surveys over each intervening five year period. Regular checking of the dwellings listed for each selected block, combined with the use of systematic random sampling at the last stage, ensure that all dwellings have the correct probability of selection for all surveys during the five year period (that is, the sample automatically adjusts for growth).

Growth revision

18.38 For the private dwelling framework, special 'growth revision' procedures are applied in areas where pockets of substantial growth have occurred (e.g. new housing subdivisions). Strata where substantial non-uniform growth has occurred are identified (using building approvals data) and each CD within them is represented twice on the frame, once for the dwellings in the CD as at the last Census and once for the growth dwellings. This means that the growth CDs can be selected twice in the sample. When revision of the CD sample is necessary due to growth in the stratum, additional clusters are allocated to the stratum with extra selections made from these clusters. The number of clusters to be allocated will depend on the amount of growth in the growth CD's of that stratum. Additional clusters should be allocated to a growth stratum according to the value of the total growth in the growth CD's, where total growth in each CD is supplied by Central Office of the ABS.

18.39 Lists of special dwellings are updated from Census information, previous lists of special dwellings, local knowledge, commercial and other directories, and field work (ie non-sample sources or independent source feedback). Special dwellings not on this list are accounted for in the private dwelling sample.

Predetermined Growth Strata

18.40 In some areas of Canberra and Darwin it is known that significant growth will occur during the life of the sample. Special growth revision procedures are used for these areas to simplify and minimise the amount of effort required to account for the growth. The CDs which constitute a growth stratum are typically in areas of rapid growth, contain large plots of vacant land on which the new dwellings are to be built and are usually geographically contiguous with similar CDs. That is, the growth stratum is not used for a CD which will grow significantly but which is bounded by fully built-up CD's. The selection of dwellings from growth strata does not include a CD stage of selection. The procedure differs depending on whether maps of the planned building lots are available.

SAMPLE RESELECTION

18.41 The ABS reselects the Population Survey Master Sample every five years, using preliminary data from the Census of Population and Housing. For the ICF, data from CHINS is also used to determine other community characteristics, as well as supplementing Indigenous community data from the Census to reduce the possibility of undercoverage in matching between the PD framework and ICF. These Censuses provide valuable information to update the frame for selections. This reselection ensures that the household survey samples continue to accurately reflect the distribution of the Australian population. As well, the opportunity exists to examine the overall design of individual household surveys to ensure that they remain efficient and cost-effective.

ESTIMATION METHODS

18.42 Household survey estimates are generally calculated using calibration estimation techniques.

BENCHMARKS

18.43 Estimates of the population produced from household surveys are calculated in such a way as to add up to independently estimated counts (benchmarks) of the population. For the LFS these benchmarks are based on Census of Population and Housing data, adjusted for under-enumeration and updated for births, deaths, interstate migration, and net permanent and long term migration. Benchmarks have been developed for state/territory of usual residence, part of state of usual residence (for example, capital city, rest of state), age and sex. Each cross-classification of these benchmark variables is known as a benchmark cell. Revisions are made to benchmarks after each Census of Population and Housing, and when the bases for estimating the population are reviewed.

18.44 Other household surveys use various combinations of benchmark variables to produce benchmark cells. Some surveys use supplementary information (such as LFS estimates), referred to in this context as pseudo-benchmarks, to supplement independent demographic benchmarks based on Census of Population and Housing data. Household surveys may use calibration methods to incorporate other auxiliary information on target populations into estimates - for instance benchmarks for the Indigenous population or the population of private households.

NON-RESPONSE

18.45 For most household surveys, a non-response adjustment is performed implicitly by the estimation system, which effectively imputes for each non-responding person on the basis of all responding persons in the same post-stratum. This adjustment accounts for both full non-response and non-response for individual questions.

RESPONSE RATES

18.46 The response rate usually quoted for ABS household surveys is defined as the number of fully responding households divided by the total number of selected households excluding sample loss. Examples of sample loss for household surveys include: households where all persons are out of scope and/or coverage; vacant dwellings; dwellings under construction; dwellings converted to non-dwellings; derelict dwellings; and demolished dwellings.

FURTHER INFORMATION

18.47 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206, or email labour.statistics@abs.gov.au.

FOOTNOTES

1. Institutions are defined as: hospitals and homes (including general homes, other hospitals, convalescent homes, homes for the aged, retirement homes, homes for the handicapped and orphanages), and prisons. Institutionalised persons are defined as all persons selected in institutions, apart from live-in staff who do not usually live in a private dwelling. <back
2. Boarding school pupils are defined as all pupils selected in boarding schools. <back
3. Note there may be more than one household associated with a dwelling. <back
4. Multistage sampling is an extension of cluster sampling - see Chapter 17 for further information. <back

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Chapter 19. The Australian Census of Population and Housing

CHAPTER 19. THE AUSTRALIAN CENSUS OF POPULATION AND HOUSING

INTRODUCTION

19.1 The Australian Bureau of Statistics conducted the first Australian Census of Population and Housing in 1911. It was followed by others in 1921, 1933, 1947 and 1954. Following the 1961 Census, a Census has been taken every five years. In 1977 an amendment was made to the Census and Statistics Act requiring that "the Census shall be taken in 1981 and in every fifth year thereafter, and at such other times as prescribed".

19.2 The objective of the Census is to accurately measure the number and key characteristics of people who are in Australia on Census night, and of the dwellings in which they live. This information provides a basis for estimating the population of each of the states, territories and local government areas, primarily for electoral purposes and for planning the distribution of government funds.

19.3 The Census also provides the characteristics of the Australian population and its housing within small geographic areas and for small population groups. This information supports the planning, administration, policy development and evaluation activities of governments and other users.

CENSUS OUTPUT

19.4 Census data are available on two different bases: place of usual residence and place of enumeration:

- The Census count for Place of Enumeration is a count of every person in Australia on Census Night, based on where they were located on that night. This may or may not be the place where they usually live. Temporary visitors to Australia are included. This type of count provides a snapshot in any given area.
- The Census count for Place of Usual Residence is a count of every person in Australia on Census Night, based on the area in which they usually live. Each person is required to state their address of usual residence on the Census form. Census counts compiled on this basis minimise the effects of seasonal factors such as the school holidays and snow season, and provide information about the usual residents of an area as well as internal migration patterns at the state/territory and regional levels.

19.5 Data from the 2011 Census were released in three phases. The first release of data containing core demographic variables were released in June 2012. The second release containing variables that require more complex processing, were released in October 2012. The third release of specialised products such as Socio-Economic Indexes for Areas (SEIFA) and the Census Sample Files began in March 2013, with products being released progressively until the end of 2013.

19.6 The ABS website is the main channel for the release of Census data. The products and services from the 2011 Census include:

Data products

- QuickStats;
- Community Profiles;
- TableBuilder (Basic and Pro);
- DataPacks;
- Census Sample File (CSF);
- 5% Statistical Longitudinal Census Dataset (SLCD);

Analytical products:

- SEIFA;
- Reflecting a Nation: Stories from the 2011 Census (cat. no. 2071.0); and

Services:

- Customised Data Services.

19.7 For further information on each of the products released from the 2011 Census, refer to Information Paper: Census of Population and Housing, Products and Services, 2011 (cat. no. 2011.0.55.001).

SCOPE AND COVERAGE

19.8 The Census includes all people in Australia on Census Night, with the exception of foreign diplomats and their families. Visitors to Australia are counted regardless of how long they have been in the country or how long they plan to stay. Australian residents out of the country on Census Night are out of scope of the Census.

19.9 Persons residing in the external territories of Cocos (Keeling) Islands and Christmas Island were included in the Census for the first time in 1996. Norfolk Islands is outside of scope of the Census.

CONTENT

19.10 Since the first national Census in 1911, the content of each Census has changed. Some topics have been included in each Census since 1911, for example age, marital status and religion, while others have been included or excluded depending on the importance of the topic at the time. Topics for inclusion in the Census must meet the following criteria:

- the topic is of major national importance and in accordance with the objectives of the Census; and
- there is a defined need for data on the topic for small groups in the population or for small geographic areas. Otherwise, the need could be satisfied from a household survey; and
- the topic is suitable for self-enumeration and meets sensitivity and privacy constraints.

19.11 The 2011 Census collected information on the following topic groups:

- Person characteristics;
- Education and qualifications;
- Employment, income and paid work;
- Cultural and language diversity;
- Aboriginal and Torres Strait Islander Peoples;
- Disability, need for assistance and carers;
- Children and childcare;
- Usual address and internal migration;
- Family characteristics;
- Dwelling and household characteristics; and
- Household income and housing costs.

19.12 Labour-related topics on the 2011 Census include: labour force status, status in employment, employment type, occupation, industry of employment, hours worked, place of work and method of travel to work. For unemployed persons, information is collected on whether looking for full-time or part-time work.

19.13 For information on topics included in each Census held from 1911 to 2011, see How Australia Takes a Census (cat. no. 2903.0).

COLLECTION METHODOLOGY

19.14 The Census is self-enumerated. Forms and information booklets are distributed by Census collectors to every household in Australia prior to Census night. The completed forms are then collected in the week or so following Census night. Since 2006, the Australian public had the option to complete their Census form via the internet. Various aspects of the collection methodology are discussed below. For more detail see How Australia Takes a Census, 2011 (cat. no. 2903.0).

CENSUS NIGHT

19.15 The date each Census is conducted is carefully chosen to minimise the proportion of the population who are not at their usual place of residence. Recent Censuses have been conducted in August. The day of the Census varies, and is chosen to avoid school and other major holidays.

COLLECTION MANAGEMENT

19.16 A large team of temporary staff is used to deliver and collect Census forms. All staff are appointed under the *Australian Bureau of Statistics Act 1975* and are subject to the strict confidentiality provisions of the *Census and Statistics Act 1905*.

19.17 ABS State and Territory Offices are responsible for the management of all field staff in their State or Territory. Around 43,000 collection

staff were employed in the 2011 Census, the majority of which were Census collectors. They deliver Census Form and Census Guide to every household in their collector workload prior to Census night. They are also responsible for collecting the forms following Census night.

19.18 As the Census is self-enumerated, there is a heavy reliance on the ability of respondents to correctly interpret questions and to answer in the desired manner with the appropriate amount of detail. Collectors are encouraged to make contact with householders, since a high level of householder contact contributes to high response and a low under-enumeration rate.

FORM DESIGN AND TESTING

19.19 To test field procedures and processing systems, a program of tests is conducted before each Census. For the 2011 Census, three tests, including a dress rehearsal, were carried out in various cities, rural and remote locations between 2007 and 2010. The dress rehearsal was held on 15 June 2010 in parts of Sydney and Dubbo in New South Wales, in parts of Adelaide and Port Augusta in South Australia and in a geographical spread of remote Indigenous communities in Western Australia.

PUBLIC RELATIONS

19.20 Significant investment is made in public communication and media relations activities to support Census field operations. Specialist communication staff are employed for the Census collection period, and an advertising campaign is conducted prior to the Census to highlight the importance of the Census and how the community is expected to cooperate to ensure its success.

PROCESSING OF CENSUS FORMS

19.21 A central Census Data Processing Centre is set up each Census with the specific task of processing the completed Census forms as quickly as possible and thereby achieving the timely release of results.

19.22 Completed Census forms are examined to ensure that key items have been answered. Some editing is undertaken to reduce inconsistencies. Write-in responses on family, qualification and occupation are coded to the appropriate classification categories.

19.23 For the 2011 Census, in cases of partially completed forms returned, imputation was undertaken for age, sex, geographic area of usual residence and registered marital status, when these questions were left unanswered. For dwellings occupied on Census Night but from which no form was returned, age, geographic area of usual residence and registered marital status may have been imputed. The number of males and females in these dwellings may also have been imputed. The remaining data items are set to 'not stated' or 'not applicable', dependent on the imputed age or sex of the person.

QUALITY CONTROL

19.24 As with other statistical collections, the ABS ensures that high quality data are obtained from the Census. To this end, extensive effort is put into the form design, collection procedures, public awareness campaign and accurate processing of the information collected.

Field testing

19.25 The method employed to obtain information in the Census involves 'self-enumeration' in which each household is asked to complete the Census form with relatively little assistance from the Census collector. To make sure that this approach is successful, a series of tests is conducted before each Census to gauge public reaction to the form and the questions it contains.

Raising public awareness

19.26 To achieve high quality Census data it is essential that people understand its importance. Therefore raising public awareness through advertising and community briefings contributes to high levels of participation in the Census.

Quality assurance

19.27 Once the forms are in the Census Data Processing Centre, quality assurance procedures are implemented at all phases of processing to maximise the accurate recording of information collected and to eliminate as far as possible any inconsistencies in coding responses. Coding procedures, indexes, processing systems and training of staff are the key areas where changes can lead to improved data quality during processing.

Residual errors

19.28 The Census, like all statistical collections, is subject to a number of sources of non-sampling error. The four most significant sources of non-sampling error for the Census are: undercounting; partial response; respondent error; and processing error. These are discussed further below.

Undercount

19.29 Despite efforts to obtain full coverage of people and dwellings, it is inevitable that a small number of people will be missed and some will be counted more than once. In Australia more people are missed from the Census than are counted more than once. The net effect when both factors are taken into account is referred to as undercount. To minimise or account for the net undercount, a Post Enumeration Survey is undertaken. The results of this survey is used to adjust Census counts in the calculation of Estimated Resident Population (ERP).

19.30 During the delivery and collection of Census forms to households, quality assurance field procedures are put into practice to ensure that the maximum number of households are included in the Census.

Respondent error

19.31 Most occurrences of respondent error are detected and corrected during editing. However, such procedures cannot detect and correct all errors, and some remain in the final output.

Processing error

19.32 Quality assurance procedures are used during Census to ensure processing errors are kept at an acceptable level. Sample checking is undertaken during coding operations, and corrections are made where necessary.

Evaluating the outcome

19.33 After the Census, an evaluation of the data is carried out to inform users about their quality, and to help plan the next Census. Evaluation includes investigation into the effects of partial response, consistency checks between related questions, and comparisons with data from other sources. Much of the information gathered about the quality of Census data is distributed in the form of commentary contained in Census products or in published working papers reporting on the evaluation of Census data quality.

Introduced random adjustments

19.34 Minor adjustments are made to the information to allow the maximum detailed Census data possible to be released without breaching the confidentiality of data reported by individual respondents. For this reason, great care should be taken when interpreting data in small cells, since possible respondent and processing errors have a greater proportional impact on them than on larger cells.

RELIABILITY OF THE ESTIMATES

19.35 Estimates from the Census are subject to non-sampling error. For further information see paragraph 19.28 above

DATA COMPARABILITY OVER TIME

19.36 The main changes to labour-related data items in the Census over its history are outlined below.

1911

Census was established by the *Census and Statistics Act 1905*, and conducted in April.
Labour-related data items included: labour force status; unemployment duration; occupation; and industry.

1921

Census conducted in April.
Labour-related data item added: cause of unemployment.

1933

Census was delayed as a result of the economic depression, and moved to June.

1947

Census was delayed as a result of World War II, and conducted in June.

1954

Census conducted in June.
Labour-related data item changes: industry - place of work also asked.

1961

Census conducted in June, and the frequency increased to five-yearly intervals.

1966

Labour-related data items added: hours worked.
Labour-related data items dropped: unemployment duration and cause of unemployment.
Data released on microfiche for the first time.

1971

Labour-related data items added: journey to work - collected by coding address of usual residence and address of workplace to obtain origins and destinations of travel to work.
Labour-related data item changes: hours worked - question focused on hours worked in all jobs held in the week prior to the Census.
Australian Standard Industrial Classification (ASIC) introduced for industry coding.

1976

Labour-related data items added: mode of travel to work.

1977

Census and Statistics Act amended to require Censuses at five-yearly intervals 'and at such other times as prescribed'.

1981

Labour-related data items changed: labour force status - since 1981 respondents are required to answer a series of questions from which labour force status is coded; hours worked in main job - replaced hours worked in all jobs.

1986

Labour-related data item changes: occupation - an additional question on main tasks or duties performed in the job has been asked since 1986.

1991

Census moved to early August after all mainland States changed from three school terms to four school terms, with holidays around the end of June.

1996

Labour-related data items added: availability to start work - to achieve comparability with Labour Force Survey definition of unemployment.
Labour-related data item changes: hours worked in all jobs - replaced hours worked in main job.
Two stage release approach introduced, with users gaining access to a wide range of first release Census data within 12 months, and the second release data released progressively from that time.

Australian and New Zealand Standard Industrial Classification (ANZSIC) introduced to replace ASIC.

2001

Two stage release approach expanded, with more data items available as part of the first release.
Introduction of intelligent character recognition, automatic coding and the use of images rather than paper forms during processing.
Option to have personal details retained and made publicly available after 99 years.

2006

Introduction of the eCensus, an option allowing respondents to complete their Census form via the internet.
Introduction of 'hotdecking' method of imputation for partial non-response.

2011

A new geographic standard, the Australian Statistical Geography Standard (ASGS), was used for the 2011 Census for the first time.

FURTHER INFORMATION

19.37 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 20. Labour Force Survey

This document was added or updated on 13/12/2013.

CHAPTER 20. LABOUR FORCE SURVEY

INTRODUCTION

20.1 The ABS has conducted the Labour Force Survey since 1960. In February 1978 the frequency of the survey was changed from quarterly to monthly. The content of the survey has remained broadly the same since its introduction, but is periodically updated to ensure that it is the most appropriate for the provision of accurate labour force statistics.

20.2 The purpose of the Labour Force Survey is to provide timely information on the labour market activity of the usually resident civilian population of Australia aged 15 years and over. The statistics of most interest are the unemployment rate, underemployment rate, labour force participation rate, employment to population ratio and estimates of the number of employed, unemployed and underemployed people. The rate of change in the number of people employed is a key indicator of economic growth. The unemployment rate (the percentage of the labour force that is unemployed) and the underemployment rate (the percentage of the labour force that is underemployed) are the main measures of underutilised labour, and the participation rate (the percentage of the population in the labour force) reflects changes in total labour availability.

SURVEY OUTPUT

20.3 Data are compiled according to concepts and definitions outlined in Chapters 2 to 7. Estimates are published monthly in Labour Force, Australia (cat. no. 6202.0). More detailed data are published one week later in Labour Force, Australia, Detailed - Electronic Delivery, and in the quarterly release Labour Force, Australia, Detailed, Quarterly (cat. no. 6291.0.55.003). Other detailed estimates are available on request.

20.4 An expanded Confidentialised Unit Record File (CURF) for the years 2008 to 2010 is available via the Remote Access Data Laboratory (RADL). This Longitudinal CURF is created from the monthly Labour Force Surveys along with data collected from labour supplementary surveys and multipurpose household surveys conducted between January 2008 and December 2010. It includes a range of data to enable users to better understand the dynamics of the labour market and transitions between employment, unemployment and not in the labour force. For more information on CURF, see Mircrodata: Longitudinal Labour Force, Australia, 2008–10 (cat. no. 6602.0).

20.5 Historical estimates can be found in Labour Force Historical Timeseries, Australia (cat. no. 6204.0.55.001). Family estimates are currently published in Labour Force Status and Other Characteristics of Families (cat. no. 6224.0.55.001). Estimates on Aboriginal and Torres Strait Islander Australians are currently published in Labour Force Characteristics of Aboriginal and Torres Strait Islander Australians, Estimates from the Labour Force Survey (cat. no. 6287.0).

20.6 The survey output includes:

Socio-demographic information

Sex, age, social marital status, relationship in household, family type, participation in school and tertiary education (people aged 15-24), birthplace and year of arrival in Australia, state or territory of usual residence, and region of usual residence.

Persons in the labour force

Labour force status, unemployment rate, labour underutilisation rate*, labour force participation rate and gross flows (changes) in labour force status.

Persons employed

Status in employment in main job, full-time or part-time status, hours actually worked in all jobs, hours actually worked in main job, hours usually worked in all jobs, aggregate monthly hours worked, whether expects to be with current employer in 12 months, underemployment*, reason for working less than 35 hours in the reference week, occupation in main job* and industry in main job*.

Persons unemployed

Whether looking for full-time or part-time work, reason for ceasing last job*, industry and occupation of last job*, duration of

unemployment, whether active steps taken to find work, and whether looking for first job.

Persons not in the labour force

Reason not in the labour force, whether looking for work.

* These data are released for the months of February, May, August and November only.

20.7 Seasonally adjusted and trend (i.e. smoothed seasonally adjusted) data are available for selected series including labour force status; unemployment; labour force participation rate; industry of employment; and long term unemployed. Seasonally adjusted data are not available for the Northern Territory or the Australian Capital Territory. See Chapter 17 for further explanation of these terms.

SCOPE

20.8 The Labour Force Survey includes all usual residents of Australia aged 15 years and over except:

- members of the permanent defence forces;
- certain diplomatic personnel of overseas governments, customarily excluded from census and estimated population counts;
- overseas residents in Australia; and
- members of non-Australian defence forces (and their dependants) stationed in Australia.

20.9 From July 1993, Jervis Bay Territory has been excluded from the scope of the Labour Force Survey

20.10 Coverage rules are applied to ensure that each person is associated with only one dwelling, and hence has only one chance of selection. The chance of a person being enumerated at two separate dwellings in the one survey is considered to be negligible. People who are away from their usual residence for six weeks or less at the time of interview are enumerated at their usual residence (relevant information may be obtained from other usual residents present at the time of the survey).

SURVEY METHODOLOGY

20.11 The majority of Labour Force Survey information is obtained by specially trained interviewers, using face-to-face and telephone interview collection methods, from the occupants of selected dwellings. Interviews are generally conducted during the two weeks beginning on the Sunday between the 5th and the 11th of each month. Most information obtained relates to the week before the interview (referred to as the reference week). Selected dwellings remain in the survey for eight consecutive months. Information about each household member in scope of the Labour Force Survey is collected from one adult using the 'Any Responsible Adult' methodology (described in paragraph 17.12, Chapter 17).

20.12 Prior to August 1996, all interviews were conducted face-to-face at selected dwellings. Over the period August 1996 to February 1997, the ABS introduced telephone interviewing. The first interview is generally conducted in person (face-to-face), whilst subsequent interviews are conducted by telephone if this is acceptable to the respondent. Telephone interviewing has been shown to provide data of a quality comparable to that obtained from personal interviews, but requires less interviewer travel time, and hence, lowers the costs of the survey.

20.13 From October 2003 to August 2004, computer assisted interviewing was progressively introduced for the Labour Force Survey. Under computer assisted interviewing, interviewers record responses directly onto an electronic questionnaire in a notebook computer, rather than using the traditional 'pen and paper' method.

20.14 Online self-completion of the Labour Force Survey was introduced in December 2012, with one rotation group initially being offered the option of self-completing the survey on-line in place of a face-to-face or telephone interview. The online self completion offer was expanded to 50% of private dwellings in each of the two incoming rotation groups from May 2013 to August 2013. Between September 2013 and April 2014 the ABS expanded the offer of online self-completion from 50% to 100% of private dwellings in each incoming rotation group. Interviewer collection (both face-to-face and via telephone) continues to be available for those respondents where it is inappropriate for operational, technological or personal reasons.

20.15 Other collection methods are used in special circumstances. A paper self-enumeration form may be used where it is not possible for a computer assisted interview to take place - for instance, where contact cannot be made with the occupants of selected dwellings or when a respondent refuses to be interviewed but will complete a form. A customised form is also used in very remote Indigenous communities.

20.16 Interviewer workloads are completed and returned for processing according to a strict timetable. Interviewers are required to make a number of attempts to contact a household before recording a non-contact (non-response). Response rates average above 93%.

SAMPLE DESIGN

20.17 A multi-stage probability sample design is used. The sample is drawn from the Population Survey Master Sample and has three components: a sample of private dwellings, a sample of discrete Indigenous communities, and a sample of non-private dwellings (i.e. hotels, motels, hospitals, retirement villages, etc.). The final stage selection unit is the dwelling.

SIZE AND ALLOCATION

20.18 The Labour Force Survey is designed to provide reliable estimates of the key labour force statistics for both the whole of Australia and each state and territory. The design also yields estimates for a number of broad regions within states.

20.19 Between February 1964 and February 1972 all households in Australia had the same probability of selection in the Labour Force Survey (1 in 100), regardless of state or territory. From May 1972, different sampling fractions applied for each state and territory. The table below shows the sampling fractions for the Labour Force Survey from the 1971 post-Census design through to the 2011 design.

LABOUR FORCE SURVEY SAMPLE - SAMPLING FRACTIONS

	New South Wales	Victoria	Queensland	South Western Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory
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1971 redesign	1 in 200	1 in 200	1 in 140	1 in 100	1 in 90	1 in 60	1 in 100	1 in 200
1976 redesign	1 in 200	1 in 200	1 in 140	1 in 100	1 in 90	1 in 60	1 in 100	1 in 100
1981 redesign	1 in 200	1 in 200	1 in 140	1 in 100	1 in 100	1 in 60	1 in 100	1 in 100
1986 redesign	1 in 230	1 in 230	1 in 160	1 in 115	1 in 115	1 in 70	1 in 115	1 in 115
1991 redesign	1 in 277	1 in 242	1 in 195	1 in 139	1 in 146	1 in 75	1 in 75	1 in 75
1996 redesign	1 in 300	1 in 257	1 in 222	1 in 147	1 in 160	1 in 83	1 in 85	1 in 85
2001 redesign	1 in 321	1 in 270	1 in 239	1 in 149	1 in 165	1 in 90	1 in 98	1 in 86
2006 redesign	1 in 380	1 in 336	1 in 315	1 in 184	1 in 246	1 in 103	1 in 54	1 in 117
2008 sample reduction	1 in 499	1 in 441	1 in 415	1 in 241	1 in 324	1 in 135	1 in 68	1 in 154
2009 sample reinstatement	1 in 380	1 in 336	1 in 315	1 in 184	1 in 246	1 in 103	1 in 54	1 in 117
2011 redesign	1 in 419	1 in 390	1 in 369	1 in 209	1 in 295	1 in 99	1 in 52	1 in 149

20.20 The current Labour Force Survey sample was selected using information collected in the 2011 Census of Population and Housing. The new sample has been designed with the aim of achieving similar levels of sampling error as the target levels established for the 2006 sample design. Generally the previous design achieved lower levels of sampling error than the sample was designed for, allowing for a reduction in the 2011 sample size to match the 2006 targets.

20.21 Under the current sample design, the sampling fractions yield a sample size of approximately 27,000 dwellings each month. This results in approximately 52,000 people responding to the survey, covering about 1 in 312 (0.32%) of the population aged 15 years and over. For further information, refer to Information Paper: Labour Force Survey Sample Design, May 2013.

20.22 There was a 24% reduction in the LFS sample size for the period July 2008 to August 2009, relative to the June 2008 sample size. The sample reduction was reinstated progressively between September and December 2009, with December 2009 estimates being the first produced under the fully reinstated sample. Extra care should be taken when using estimates from this period due to increased sampling error.

SAMPLE ROTATION

20.23 Since the monthly Labour Force Survey commenced in 1978, one-eighth of the sample has been replaced each month. The sample can be thought of as comprising eight sub-samples (or rotation groups), with each sub-sample remaining in the survey for eight months. A new rotation group is introduced each month to replace an outgoing rotation group. This replacement sample generally comes from the same geographic area as the outgoing one.

20.24 Sample rotation enables reliable measures of monthly change in labour force statistics to be compiled, as seven-eighths of the sample from one month are retained for the following survey. At the same time, the sample rotation procedure ensures that no dwelling is retained in the sample for more than eight months and that the sample reflects changes over time in the dwelling population (such as construction of new dwellings).

20.25 The component of the sample that is common from one month to the next makes it possible to match the characteristics of most of the people in those dwellings: this group is referred to as the 'matched sample'. The availability of this matched sample permits the production of estimates of 'gross flows' — the number of people who change labour force status between successive months.

SAMPLE RESELECTION

20.26 A new Labour Force Survey sample is selected every five years after each Census of Population and Housing to ensure that the survey continues to accurately reflect the socio-demographic distribution of the Australian population. The next sample redesign, which will take into account results from the 2016 Census, is expected to be implemented in 2017-18.

ESTIMATION

20.27 The estimation method used in the Labour Force Survey is composite estimation, which was introduced in May 2007. In January 2014 composite estimation was applied to all estimates from July 1991 as part of the historical revision to labour force data to reflect revised population benchmarks based on the 2011 Census (see paragraph 20.32). Composite estimation combines data collected in the previous six months with current month's data to produce the current month's estimates, thereby exploiting the high correlation between overlapping samples across months in the Labour Force Survey. The Composite estimation process combines the seven months of data by applying different factors according to length of time in the survey. These factors sum to unity for the current month, and once they are applied, the data are weighted to align with current month population benchmarks. For more information on composite estimation see Information Paper: Forthcoming Changes to Labour Force Statistics, 2007 (cat. no. 6292.0).

20.28 Prior to the introduction of Composite estimation, the estimation method used in the Labour Force Survey was generalised regression, which only used the current month's data.

BENCHMARKS

20.29 Estimates of the number of people employed, unemployed and not in the labour force are calculated in such a way as to add up to independent estimates of the civilian population aged 15 years and over (population benchmarks) for age groups, sex and regions. There are two sets of benchmarks used in the Labour Force Survey. The first set of benchmarks are classified by state or territory of usual residence, part of state of usual residence (capital city, rest of state), age and sex. The second set are classified by statistical region of usual residence and sex (known as 'regional benchmarks'). The use of regional benchmarks improves the quality of estimates for Labour Force Survey regions, with negligible impact on estimates at national, state and territory levels.

20.30 Since the most recently released Estimated Resident Population (ERP) estimates lag the current time period for labour force survey estimates by nine months, the population benchmarks are initially derived as short-term projections of the most recent ERP estimates, which are based on Census of Population and Housing data, adjusted for under-enumeration and updated for births, deaths, interstate migration and net permanent and long-term migration. The short-term projections are based on the historical pattern of each population component - births, deaths, interstate migration and net overseas migration.

20.31 Prior to July 2010 the Labour Force Survey population benchmarks were only revised every five years following the release of the final population estimates from the Census of Population and Housing. Benchmark revisions that incorporated Net Overseas Migration revisions to ERP were released in July 2010 (for the period July 2006 to June 2010) and November 2012 (for the period July 2008 to October 2012).

For more information, refer to the article Rebenchmarking of Labour Force Series in the November 2012 issue of Labour Force, Australia (cat. no. 6202.0).

20.32 In addition, ERP rebasing is undertaken every five years to incorporate additional information from the latest available Census data. From January 2014, labour force estimates have been compiled using population benchmarks based on the results of the 2011 Census. Revisions were made at this time to historical Labour Force estimates from July 1991 to December 2013, to reflect revised population benchmarks. For more information, refer to the article Rebenchmarking Labour Force Estimates to the 2011 Census of Population and Housing in the January 2014 issue of Labour Force, Australia (cat. no. 6202.0). The next rebasing will be following the release of the 2016 Census-based ERP estimates.

TIME SERIES ESTIMATES

20.33 Both seasonally adjusted and trend estimates are produced for key series from this survey.

Seasonal adjustment

20.34 Many monthly series have been seasonally adjusted from February 1978 and are available in a range of products. Quarterly historical series (from August 1966) are available in 6204.0.55.001. Concurrent seasonal adjustment was introduced from the December 2003 survey, replacing the annual forward factor method. At the same time, other improvements were made to the seasonal adjustment methodology to better handle the moving January interview start date and the proximity of Easter to the April survey period.

20.35 Concurrent seasonal adjustment uses original data up to and including the current month (or quarter for quarterly series) to estimate seasonal factors for the current and all previous months (or quarters). Seasonally adjusted estimates from this method are usually closer on average to their final values, as any change in seasonality is observed sooner. The seasonal factors are further reviewed annually to take account of each additional year's original data if necessary. Revisions under this method are more frequent (every month for a monthly series), although the degree of revision is generally smaller than with the forward factor method of adjustment (where revisions are only made annually). For more information on concurrent seasonal adjustment, see Information Paper: Forthcoming Changes to Labour Force Statistics, 2003 (cat. no. 6292.0).

Trend estimates

20.36 Trend estimates are available for many series dating back to February 1978. Trend estimates are produced using a centred 13-term Henderson moving average of the seasonally adjusted series for monthly estimates, and a centred 7-term Henderson moving average for quarterly estimates (e.g. employment by industry). Centred symmetric moving averages cannot be used to directly estimate smoothed series values all the way to the end of the series, since there are insufficient observations available for the moving average calculations. The ABS uses non-symmetric moving averages to determine estimates of trend at the current end of the series. Revisions of trend estimates occur as data become available for later periods (these revisions are mainly because of the non-symmetric moving averages at the end of the series, but also because of concurrent seasonal adjustment). For further information, refer to Information Paper: A Guide to Interpreting Time Series - Monitoring Trends, 2003 (cat. no. 1349.0).

ESTIMATES OF GROSS FLOWS

20.37 Because a high proportion of the private dwellings selected each month remain in the sample for the following month, it is possible to match the characteristics of most of the people in those dwellings from one month to the next. This makes it possible to record any changes in the labour force status of these people, and hence to produce estimates of 'gross flows' - the number of people who change labour force status between successive months.

20.38 Gross flow estimates relate only to those people in private dwellings for whom information was obtained in two successive surveys. The procedures used to select people in non-private dwellings preclude the possibility of matching such people who may be included in successive surveys. Also, the mobility of the population and non-response in either or both surveys means that a proportion of people in private dwellings who are included in the sample in successive months cannot be matched.

20.39 Overall, those who can be matched (in the private dwelling sample) from one month to the previous month represent about 80% of all people in the survey. About two-thirds of the remaining (unmatched) 20% are likely to have characteristics similar to those in the matched group, but the characteristics of the other third are likely to be somewhat different. The expansion factors used in calculating the estimates are those applying to the second of each pair of months. The estimates are not adjusted to account for the unmatched sample component.

20.40 Although it is not possible to provide gross flow estimates for all people in the survey, the estimates derived from matched records are a useful guide to the proportion of the movements between categories which underlie the changes in monthly levels. When comparing flows for different periods it is important to take into account the population represented by the matched sample. Gross flow estimates are available monthly in a data cube in Labour Force, Australia (cat. no. 6202.0) - see GM1 - Labour Force Statistics and Gross Changes (flows) by Sex, State and Age.

20.41 While every effort is made to reduce non-sampling errors to a minimum, any such errors affecting labour force status will tend to accumulate in the gross flow statistics. The estimates are also subject to sampling variability.

RELIABILITY OF THE ESTIMATES

20.42 Estimates from the survey are subject to both sampling and non-sampling error.

20.43 Sampling error occurs because a sample, rather than the entire population, is surveyed. The most commonly used measure of the likely difference resulting from not including all dwellings in the survey is given by the standard error. Tables of standard errors of survey estimates are published each month in Labour Force, Australia (cat. no. 6202.0). The standard errors in these tables are mathematically modelled after each sample redesign, using many different estimates from several months of survey responses. Standard errors for other estimates and other movements may be calculated by using the spreadsheet contained in Labour Force Survey Standard Errors, Data Cube (cat. no. 6298.0.55.001). Further information about sampling error is available in Chapter 17.

20.44 Non-sampling error arises from inaccuracies in collecting, recording and processing the data. Every effort is made to minimise reporting error by the careful design of questionnaires, intensive training and supervision of interviewers, and efficient data processing procedures. Non-sampling error also arises because information cannot be obtained from all persons selected in the survey. The Labour

Force Survey receives a high level of co-operation from individuals in selected dwellings, with response rates averaging above 93%. Further information about non-sampling error is available in Chapter 17.

DATA COMPARABILITY OVER TIME

20.45 Frequency of collection, collection and sampling methods, concepts, data item definitions, classifications, and time series analysis techniques are all subject to change or development. Some survey features are reviewed regularly, while others are changed as the need arises. Despite the overriding need for long-term comparability, sound survey practice requires careful and continuing maintenance and development to maintain the integrity of the data and the efficiency of the collection.

20.46 While Labour Force Survey publications in various forms exist for a period of over 50 years and provide documentation of changes in survey practice over that time, individual historical publications are not necessarily the best source for extraction of comparable historical data series. Apart from the regular revision of seasonally adjusted and trend series, and the five yearly population benchmark revisions, from time to time other revisions are made to maintain comparability after changes to questions and definitions.

20.47 The primary sources for labour force series adjusted to the most current comparable basis are:

- Labour Force Historical Timeseries, Australia, 1966 to 1984 (cat. no. 6204.0.55.001);
- Labour Force Australia, Historical Summary 1966-1984 (cat. no. 6204.0) (for quarterly series from August 1966 to November 1977);
- The Labour Force 1964 to 1968 Historical Supplement (Reference no. 6.22, - only available in hardcopy) (February 1964 to May 1966 data, original); and
- The Labour Force 1977 (cat. no. 6204.0) for the last release of seasonally adjusted series for February 1964 to May 1966.

20.48 The major events and changes to the Labour Force Survey are outlined below.

Nov 1960

Quarterly survey commenced. State Capital Cities only, including people aged 14 and over, but excluding the Aboriginal and Torres Strait Islander population.

Sample of 1% of households Australia wide, with 1/8 rotation in private dwellings and 1/4 rotation in other dwellings.

Nov 1963

First release of State Capital City series, November 1960- November 1963 **Employment and Unemployment, October 1963** (Ref. no. 6.4 - only available in hardcopy) issued February 1964.

Estimates and population benchmarks based on 1961 Census of Population and Housing data. Labour force definitions based on the International Conference of Labour Statisticians (ICLS) 1954.

Feb 1964

Quarterly national survey commenced. Capital city series continued in absence of release of national series. Capital city estimates and population benchmarks based on 1961 Census data.

Aug 1966

Scope of survey population reduced to people aged 15 and over, due to changes in the school leaving age and to conform with definitions used in the 1966 Census. Indigenous population was included. Additional questions were introduced on steps taken to find a job.

The grouping of hours worked changed to reflect recommendations from ICLS 1961. Occupation classified according to Classification and Classified List of Occupations (CCLO) 1966 Census edition. Industry classified according to Classification and Classified List of Industries (CCLI) 1966 Census edition and 1966 Group Employer Place of Work index.

Aug 1967

Additional questions introduced to better identify employees of incorporated enterprises (some of whom had previously been incorrectly classified as employers or self-employed).

Feb 1969

The Labour Force, Preliminary Estimates, August 1966 - February 1969, (Ref. no. 6.20 - only available in hardcopy). Later publications titled **The Labour Force** (Ref. no. 6.20 - only available in hardcopy) were released.

May 1970

First release of national seasonally adjusted series.

Jul 1970

Annual issue of **The Labour Force, Historical Supplement 1964-1968** (Ref. no. 6.22) commenced, subsequent publications titled **The Labour Force** (Ref. no. 6.22 - only available in hardcopy).

Aug 1971

Classification of trainee teachers changed from 'employed' to 'not in the labour force', to conform with 1971 Census practice and international recommendations regarding activity principles. For the period August 1971 to August 1972, industry responses coded to both CCLI and ASIC, leading to full adoption of industry classified according to 1971 Census ASIC (August 1969 Preliminary edition) and 1971 Census Industry/Destination zone employer index from November 1972, and conversion of August 1966-May 1971 industry series to Australian Standard Industrial Classification (ASIC).

Nov 1971

Occupation classified according to CCLO 1971 edition, replacing CCLO 1966 version.

Feb 1972

Questions on country of birth and year of arrival in Australia added. February 1972 data published as supplementary survey results and then quarterly in **The Labour Force** (Ref. no. 6.20 - only available in hardcopy) from May 1972 onwards.

May 1972

Sample redesign based on 1971 Census, phased in from May 1972 to November 1972. Introduction of different sampling fractions

across states and territories, with overall fraction reduced from 1% to 0.67%.

Nov 1972

First release of the preliminary labour force estimates in the quarterly publication, **The Labour Force (Preliminary)** (Ref. no. 6.32 - only available in hardcopy), was issued in May 1973.

Nov 1973

The seasonal adjustment of estimates for unemployed males, females and people by separate adjustment of unemployed series by sex (males, females) by age (15-19 years, 20 years and over) was undertaken. Previous, estimates were obtained by a (single) direct adjustment to the total estimate. Seasonally adjusted unemployment estimates February 1964 to August 1973 were revised. For final publication of the February 1964 to May 1966 seasonally adjusted series (using 1966 as the base year and excluding Indigenous population) see The Labour Force, 1977 (cat. no. 6204.0).

Nov 1974

First collection of Relationship in household data. Labour Force Status and Other Characteristics of Families (cat. no. 6224.0) first published as an irregular. See also Labour Force, Australia (cat. no. 6203.0) various issues were released between May 1977 and July 1980. The first release of preliminary unemployment estimates in the quarterly publication **Unemployment, Preliminary Estimates** (Ref. no. 6.31), was issued in December 1974. Relationship in household (i.e. families) estimates excluded persons and institutions. 'Family status' imputed for persons in private households where any member was out of scope, absent for six weeks or more at survey, or who were a visitor. Families estimates based on proxy (household head) weight.

Feb 1975

Estimates excluded Darwin (due to effects of cyclone Tracy). Respondents asked if they looked for work in the last four weeks (previously looked for work last week). Availability question added. Unemployment series and definition continued on old basis, with separate publication of new question results until February 1976. Unemployment definition and series based on new questions adopted from May 1976.

May 1975

Estimates and population benchmarks based on 1971 Census benchmarks. Revisions to August 1966 - November 1972 principal series, and from February 1973 onwards, full revision of all estimates and series (including annual seasonal factor re-analysis).

May 1976

Following February 1975 question changes, definition of unemployment revised to incorporate active job search in the last four weeks (previously in the last week), and availability to start work in the reference week (with separate provision for temporary illness and future starters). Series revised from February 1975.

Aug 1977

Catalogue numbers replaced reference numbers - cat. no. 6202.0 replaced Ref. no. 6.32 - only available in hardcopy) and cat. no. 6203.0 replaced Ref. no. 6.20 - only available in hardcopy).

Nov 1977

In preparation for the start of monthly surveys in February 1978 (with a new questionnaire, revised 1976 Census based sample and 1976 based population benchmarks), two surveys were conducted simultaneously in November 1977. Of these two surveys, one provided the published November 1977 results, based on the old questionnaire, the old 1971-based sample design (reduced to 0.5%), and the 1971-based population benchmarks. The other survey, based on the new questionnaire and the new, 1976-based sample, was used to prepare adjustment factors and revisions to historical estimates, so that comparable historical series could be published with the first release of February 1978 survey results. Occupation classified according to CCLO 1976 edition, replacing CCLO 1971 version. Industry classified according to the ASIC 1969 edition and Integrated Business Register employer index. Catalogue numbers replaced reference numbers - cat. no. 6201.0 replaced Ref. no. 6.35.

Feb 1978

Monthly national survey commenced. The Labour Force Survey adopted as the official national measure of unemployment. Interviews conducted over 2 one-week periods, previously 4 one-week periods. Estimates and benchmarks based on 1976 Census data, with series from August 1971 onwards revised to 1976-based benchmarks. Complex mix of reweighting unit record files, and/or key series adjustment: not all files, nor all series, were revised (see Labour Force Australia, Historical Summary 1966-1984 (cat. no. 6204.0) Appendix 1). With the full implementation of the 1976 Census based sample design, 1/8 monthly sample rotation was introduced for non-private dwellings: whole sample now subject to 1/8 rotation. New questionnaire introduced with substantial redesign of question wording, structure and sequence to improve data quality. Changes included separate questions on looking for full-time/looking for part-time job; active search more clearly identified, availability and future starters better identified. Some impact on employed, main impact on unemployed seeking part-time work. New definitions of employment and unemployment adopted. Definition of unemployed persons looking for first job was revised to "unemployed persons who had never worked full time for two weeks or more". Prior to November 1977 the definition was "unemployed persons who had never had a job". August 1966 to November 1977 series revised to comparable basis, as a result of new questionnaire introduction. Seasonally adjusted series continued on a quarterly basis, pending accumulation of sufficient results to permit adjustment of monthly series.

Jul 1979

Annual issue of Labour Force Status and Other Characteristics of Families (cat. no. 6224.0) commenced (July each year except 1981 (June), then June each year from 1986).

Nov 1979

Industry classified according to ASIC 1978 edition, replacing ASIC 1969 edition.

Aug 1981

Occupation classified according to CCLO November 1980 edition, replacing CCLO 1976 version.

Nov 1981

Minor rewording and re-ordering of categories of steps taken to look for work. No impact on data or definitions.

Feb 1982

Seasonally adjusted series introduced for monthly estimates series from February 1978 onwards. Annual seasonal factor re-analysis and series revision carried out at February each year from this survey.

Oct 1982

Full sample changed to sample redesign based on 1981 Census, including modifications to enable production of regional estimates within states, and estimates by State of usual residence. Additional questions to identify usual residence and family relationship, with marital status questions reworded and de facto relationships coded as married. Additional identification of persons usually working less than 35 hours per week. 1981 Australian Standard Geographic Classification (ASGC) based Labour Force Statistical Regions classification.

Dec 1982

Monthly publication Unemployment, Preliminary (cat. no. 6101.0) discontinued, final release issued in January 1983.

Jul 1983

Scope for 'Family status' (and hence families estimates) restricted to usual residents of private dwellings where all usual residents were within the survey scope and in on coverage at survey date. 'Family status' and families estimates thus exclude all persons in non-private dwellings, persons visiting private dwellings, or households where any member was out of scope or absent for six weeks or more at survey.

Feb 1984

Estimates and population benchmarks based on 1981 Census data. Estimates for the period October 1982 were revised to full state of usual residence basis on 1981 Census benchmarks. Estimates from February 1978 to September 1982 revised to 1981 benchmarks but remain on the previous state of enumeration/place of usual residence basis.

Sept 1984

Monthly publication of Relationship in household and Families estimates in Labour Force, Australia (cat. no. 6203.0) commenced. Scope and estimation as for annual collection.

Nov 1984

Industry classified according to ASIC 1983 edition, replacing ASIC 1978 edition.

Apr 1986

Definition of employed persons altered, to include persons working 1 to 14 hours without pay in a family business or farm, in line with ILO definitions (ICLS 1982). Minor question wording and sequence changes in consequence. Significant break in series for employed, employed part-time, unemployed and related unemployment rates. Dependants definition, and the Family status item 'full-time student', includes full-time students aged 15-24 (previously aged 15-20). Weighting of families estimates changed, from proxy (household head) weight to harmonic mean of weights of all responding members of the family.

Aug 1986

Australian Standard Classification of Occupations (ASCO) introduced for classification of occupation of persons, replacing CCLO 1981.

Sept 1987 to Dec 1987

Sample redesign based on the 1986 Census. New sample phased in. Overall sample fraction is 0.6%. A new 1986 ASGC based Labour Force Statistical Regions classification was used.

Nov 1988

Additional unemployment variable introduced: reason for ceasing last job (job losers/job leavers). No change in definition nor break in series.

Feb 1989

Estimates and population benchmarks based on 1986 Census data. All estimates for the period January 1984 onwards revised.

Jun 1989

'Family type' class 'Other families' split into 'One parent families' and 'Other families'.

Nov 1989

Optical Mark Recognition questionnaire design and data capture method introduced.

Sep 1992 to Dec 1992

Sample redesign based on the 1991 Census. New sample phased in. Overall fraction is 0.5%. The updated 1991 ASGC based Labour Force Statistical Regions classification.

Feb 1993

Introduction of seasonally adjusted and trend series for Employed persons by Industry of main job (at Industry Division level).

Jul 1993

Jervis Bay Territory excluded from the scope of the survey. Previously it was included in estimates for the Australian Capital Territory.

Feb 1994

Estimates and population benchmarks based on 1991 Census data. All estimates for the period January 1989 on revised. Status in employment class titles amended to reflect the International Conference of Labour Statisticians (ICLS) and International Conference of Status in Employment (ICSE) 93.

Mar 1994

'Relationship in household' and 'Family type' classifications aligned with ABS standards, resulting in some breaks in comparability with previous Family status and family type classifications.

Aug 1994

Australian and New Zealand Standard Industrial Classification (ANZSIC) introduced in place of ASIC 1983 edition. Revised historical estimates of employment published by ANZSIC group from August 1984 onwards.

Aug 1995

Seasonally adjusted and trend estimates of long-term unemployment published for the first time.

Aug 1996 to Feb 1997

Telephone interviewing implemented progressively. Initial impact on data dissipated by end of implementation period.

Aug 1996

Occupation coded using Australian Standard Classification of Occupations (ASCO) Second Edition replacing the first edition of ASCO.

Sep 1997 to Apr 1998

Sample redesign phased in based on the 1996 Census. Overall fraction is 0.5%. The new 1996 ASGC based Labour Force Statistical Regions classification.

Feb 1999

Estimates and population benchmarks based on 1996 Census data. All estimates for the period January 1995 onwards were revised.

Feb 2000

Computer assisted coding introduced for industry and occupation in place of manual coding and reference to the ABS Business Register. Derivation of status in employment changed to remove reference to the ABS Business Register for limited liability information. Breaks in series for Status in employment, Industry and Occupation series.

Mar 2000 to Jul 2000

One rotation group each month enumerated by new questionnaire for evaluation purposes. Data converted to existing definitions at estimation stage.

Sep 2000

NSW enumeration one week early to allow for Olympic Games.

Apr 2001

New questionnaire implemented. For information on the changes made to the questionnaire, see Information Paper: Questionnaires Used in the Labour Force Survey, 2001 (cat. no. 6232.0). New or extended data on: job tenure; underemployment; hours worked; duration of unemployment; and marginal attachment to the labour force. Minor definitional changes to employment and unemployment relating to: short term absences; unavailability due to illness; and contributing family workers (ICLS 1982, ICSE-93, ICLS 1998). The core labour force series were revised back to April 1986 to account for these definitional changes.

Aug 2001

Enumeration one week later than usual to avoid overlap with Census.

Nov 2002

Sample redesign phased in from November 2002 to June 2003 based on the 2001 Census. Overall fraction is 0.45%. 2001 ASGC based Labour Force Statistical Regions classification introduced for the new design, replacing the 1996 ASGC based Labour Force Statistical Regions classification. Sample selection stage in less populated areas based on the ASGC Remoteness structure instead of population density. In hotels and motels, only those units occupied by usual residents enumerated. A sample frame for Indigenous communities was introduced as an aid to enumeration in the Labour Force Survey and household surveys generally. For more information on the sample redesign, see Information Paper: Labour Force Survey Sample Design, November 2002 (cat. no. 6269.0).

Feb 2003

Monthly publication Labour Force, Australia (cat. no. 6203.0) discontinued, final release issued in March 2003. Additional question on underemployed workers and their availability to work extra hours within four weeks of the survey date included. For more information on the changes to the questionnaire, see Information Paper: Questionnaires Used in the Labour Force Survey, 2004 (cat. no. 6232.0).

Apr 2003

Monthly publication Labour Force, Australia, Preliminary (cat. no. 6202.0) renamed Labour Force, Australia (cat. no. 6202.0).

Oct 2003 to Aug 2004

Computer assisted interviewing progressively implemented in place of pen and paper questionnaire.

Dec 2003

Concurrent monthly and quarterly analysis of seasonal adjustment factors introduced in place of annual forward factor analysis and revision. For more information on concurrent seasonal adjustment, see Information Paper: Forthcoming Changes to Labour Force Statistics, 2003 (cat. no. 6292.0).

Feb 2004

Estimates and population benchmarks based on 2001 Census data. All estimates for the period January 1999 to January 2004 revised. The definition of unemployed persons was changed to include 'future starters' (persons who had not actively looked for work because they were waiting to start a new job within four weeks from the end of the survey reference week, and could have started in the reference week if the job had been available then). These persons had previously been classified as not in the labour force. Historical series from April 2001 were revised to the new basis as part of the benchmark revision. Unit record data revised for the period September 1997 to March 2001, to account for the definitional changes introduced in April 2001. Industry and occupation series revised back to August 2000 to include 'not further defined' categories in cases where there is not enough detail provided to allow the ABS to code people to the lowest level of these classifications. (From the introduction of computer assisted coding in 2000 until November 2003, these responses were proportionally distributed to the most detailed level of the classification.) For more information on the changes introduced in February 2004, see Information Paper: Forthcoming Changes to Labour Force Statistics, 2003 (cat. no. 6292.0).

May 2005

Autocoding (AC) introduced for the coding of industry and occupation data. Industry and occupation codes are applied automatically by a computer matching the survey responses to an industry or occupation index. Where the AC system is unable to allocate a valid code to a record, the record is then passed on to the Computer Assisted Coding (CAC) system for coding. Comparisons of the estimates of employed persons at the industry Division and occupation Major Group level from each of the two methods showed that in a small number of cases there were statistically significant differences between the two methods. These differences were inconsistent across the months analysed, and were so small and variable, that application of adjustment factors is not warranted.

Aug 2006

Industry coded using both the new classification Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006 and the previous classification Australian and New Zealand Standard Industrial Classification (ANZSIC) 1993. Occupation coded using both the new classification Australian and New Zealand Standard Classification of Occupations (ANZSCO) and the previous classification Australian Standard Classification of Occupations (ASCO) Second Edition. Dual-coding continued until November 2008.

Feb 2007

First release of selected industry and occupation estimates on an ANZSIC 2006 and ANZSCO basis, from August 2006.

May 2007

Composite estimation introduced replacing the previous estimation method. Historical series from April 2001 to April 2007 were revised to the new basis as part of the implementation of composite estimation. Unit record data was also revised for this period. For more information on composite estimation, see Information Paper: Forthcoming Changes to Labour Force Statistics, 2007 (cat. no. 6292.0).

Nov 2007

Sample redesign phased in from November 2007 to June 2008 based on the 2006 Census of Population and Housing. Overall fraction is 0.32%. Sampling efficiencies related to the introduction of composite estimates enabled an 11% reduction in the sample with only minor reductions in data quality relative to the previous design. For more information on the sample redesign, see Information Paper: Labour Force Survey Sample Design, November 2007 (cat. no. 6269.0).

Jul 2008

The sample was reduced by 24% in July 2008 as one of a range of ABS savings initiatives for the 2008-09 financial year, with coverage representing approximately 0.24% of the population aged 15 years and over. For information about the sample reduction, refer to Information Paper: Labour Force Survey Sample Design, November 2007, Second edition (cat. no. 6269.0).

Sep 2008

Interviewing procedures changed to commence on a Sunday between the 5th and the 11th of the month, and the reference week changed to be the prior Sunday to Saturday – interviews previously commenced on the Monday between the 6th and 12th of each month (with exception at the end and beginning of each calendar year). The new procedures were introduced to increase the likelihood of contact with households, thereby increasing the efficiency and accuracy of the LFS estimates. An improved method for calculating families estimates was introduced. Detailed information on the improved method is provided in Information Paper: Improvements to Family Estimates from the Labour Force Survey (cat. no. 6224.0.55.002).

Feb 2009

The ANZSIC 2006 classification system replaced ANZSIC 1993 for industry employment estimates. The ANZSCO classification system replaces the classification, Australian Standard Classification of Occupations (ASCO) Second Edition for occupation employment estimates. The time series spreadsheets previously published in Labour Force, Australia, Spreadsheets (cat. no. 6202.0.55.001) are now included in Labour Force, Australia (cat. no. 6202.0). Estimates compiled using population benchmarks based on results from the 2006 Census, with data for the period June 2001 to January 2009 revised to reflect the latest population estimates. Regional estimates are classified to the Labour Force Statistical Regions based on the 2006 Australian Standard Geographical Classification. Previous estimates were based on the 2001 Australian Standard Geographical Classification.

Apr 2009

Gross flow estimates released from the labour force survey and included in data cube GM1 - Labour Force Statistics and Gross Changes (flows) by Sex, State and Age in Labour Force, Australia (cat. no. 6202.0).

Sept 2009

The July 2008 sample reduction was reinstated progressively from September to December 2009. Detailed information about the sample reinstatement is available in Information Paper Labour: Force Survey Sample Design, Nov 2007 (Third edition) (cat. no. 6269.0).

Jul 2010

Labour force estimates compiled using updated population benchmarks that incorporate revisions made to Net Overseas Migration estimates, with data for the period July 2006 to June 2010 revised to reflect the latest population estimates.

Oct 2010

The derivation of the net overseas migration component of LFS population benchmarks updated to use assumptions that take into account a range of available supplementary data sources and relevant information to forecast population changes in the short-term. These were previously based on the assumption that the previous year's net overseas migration (for the required quarter) movements were representative of the current year's movement.

Jul 2011

Looking on the internet was added to looking in newspapers as a passive job search step and references to Centrelink touch screens were removed from job search steps. Job search step 'check factory noticeboards' was changed to 'checked noticeboards.'

Feb 2012

Revisions to employment by industry estimates for the period November 1984 to May 1994 were made to reflect improvements made to the concordance between the formerly used Australian Standard Industrial Classification (ASIC 1983) and the current Australian and New Zealand Industry Classification (ANZSIC 2006). Revisions were also made to the time series spreadsheets for the period April 1986 to August 1997 to incorporate more accurate estimates from the source data and improve coherence between labour force products. A break in series was also introduced for duration of unemployment estimates to separate the synthetic estimates produced for the period April 1986 to March 2001 from the estimates directly measured from April 2001 onwards.

Nov 2012

Labour Force estimates from July 2008 to October 2012 revised to align the labour Force population benchmarks with the latest available information on population growth.

Dec 2012

Online self-completion of the Labour Force Survey progressively introduced, with one rotation group initially being offered the option of self-completing the survey on-line in place of a face-to-face or telephone interview.

May 2013

Sample redesign phased in from May to August 2013 based on the 2011 Census of Population and Housing. For the key LFS estimates, the 2011 sample design generally maintains standard errors at levels targeted under the 2006 sample design. Generally the previous design achieved lower levels of sampling error than the sample was designed for, allowing for a reduction in the 2011 sample size to match the 2006 targets. For more information on the sample redesign, see Information Paper: Labour Force Survey Sample Design, May 2013.

Jan 2014

Estimates compiled using population benchmarks aligned with ERP based on the 2011 Census. Data for the period June 1991 to December 2013 were revised to reflect the rebased population estimates. For more information, refer to the article Rebenchmarking Labour Force Estimates to the 2011 Census of Population and Housing. Regional estimates produced at the Statistical Area Level 4 (SA4) level of the Australian Statistical Geography Standard (ASGS), with data released on a consistent ASGS basis back to October 1998. Previous estimates were based on the 2006 Australian Standard Geographical Classification (ASGC). For more information on regional estimates, see Information Paper: Regional Labour Force Statistics, 2014 (cat. no. 6262.0). Composite estimation was applied to all estimates from July 1991 (previously only back April 2001).

Feb 2014

Refined procedures for respondent follow-up introduced, resulting in expected response rates ranging between 93 to 95% each month (previously 95 to 97% each month). These procedures were introduced as part of a broader program of ABS work to enhance the cost effectiveness of its response follow-up strategies while maintaining the high quality of its statistics.

Jul 2014

New questionnaire implemented. Minor definitional changes made to active job search steps and duration of unemployment. For information on the changes made to the questionnaire, see Information Paper: Forthcoming Changes to Labour Force Statistics, Jun 2014.

FURTHER INFORMATION

20.49 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 21. Labour Force Supplementary Surveys

CHAPTER 21. LABOUR FORCE SUPPLEMENTARY SURVEYS

INTRODUCTION

21.0.1 A supplementary topic was included with the Labour Force Survey for the first time in November 1961, and this concept has been gradually extended so that now the majority of months in each year include supplementary questions on one or more topics.

21.0.2 Each Labour Force Supplementary Survey comprises a series of additional questions asked at the end of each Labour Force Survey interview. The survey methodology does not differ greatly among the supplementary surveys, and in many aspects is the same as the Labour Force Survey methodology (outlined in Chapter 20). Paragraphs 21.0.1 to 21.0.22 of Chapter 21 (below) describe the broad survey methodology of the supplementary surveys. They should be used in conjunction with Sections 1 to 16, which outline elements of the methodology which are unique to each supplementary survey.

OBJECTIVES OF THE LABOUR FORCE SUPPLEMENTARY SURVEYS

21.0.3 The Labour Force Supplementary Surveys form an important component of the ABS's household surveys program, which aims:

- to provide a range of statistics required to monitor the social and economic wellbeing of Australians with particular reference to important sub-groups of the population; and
- to support the development, implementation and evaluation of policies and programs of key Commonwealth and State government agencies.

21.0.4 The information requirements of ABS household surveys are determined on the basis of submissions from users on their needs for and uses of household survey data. They also reflect ABS deliberations on what is required of a national statistics program in the various subject fields, based on user contact and consultation.

21.0.5 In the field of labour statistics, supplementary surveys provide detailed information on a range of labour topics and interest groups such as:

- labour force - labour force experience;
- employment - underemployment; multiple job holding; forms of employment; labour turnover; work-related injuries; and locations of work;
- employees - earnings; trade union membership; benefits; and working arrangements;
- unemployment - job search experience; successful and unsuccessful job search;
- persons not in the labour force - discouraged job seekers; other persons with marginal attachment to the labour force;
- retirement and retirement intentions; and
- persons retrenched or made redundant from work.

21.0.6 Many labour topics are covered on a regular basis, while others are only covered once or at irregular intervals to meet a specific need for information. Topics are usually run nationally. However, one month is set aside each year for State government proposed topics, specific to one or more States. The program also includes other social and economic topics not relating to labour statistics, such as the environment, crime and safety, and child care.

SURVEY OUTPUT

21.0.7 Estimates from each supplementary survey are released in separate publications. More detailed estimates are available on request. Confidentialised Unit Record Files are sometimes also produced.

SCOPE

21.0.8 In addition to those already excluded from the Labour Force Survey, the following persons are excluded from most supplementary surveys (see paragraphs 18.2 to 18.4 of Chapter 18 for further information)

- people living in private dwellings in very remote parts of Australia;
- institutionalised people; and
- boarding school pupils.

21.0.9 Depending on the topic or population of interest for which information is being collected, there may be further exclusions from scope. For example, some supplementary surveys exclude all persons living in special dwellings; others collect information only from a certain population or interest group (e.g. information on retirement is collected from persons aged 45 years or over).

COLLECTION METHODOLOGY

21.0.10 The collection methodology for the supplementary surveys is generally the same as for the Labour Force Survey. Interviews are conducted at the same time as interviews for the Labour Force Survey. Most interviews (about 70%) are conducted by telephone, with the remainder conducted face-to-face.

21.0.11 Information about each household member in scope of the supplementary survey is generally collected from one adult using the ARA methodology.

21.0.12 Response rates for the supplementary surveys are slightly lower than for the Labour Force Survey, and average around 93%.

SAMPLE DESIGN

21.0.13 The supplementary surveys use the same sample design as the Labour Force Survey, and the sample used in the supplementary surveys is a subset of the Labour Force Survey sample. Persons in the outgoing rotation group in the Labour Force Survey are excluded from all supplementary surveys.

21.0.14 The sample size for the supplementary surveys varies. In addition to the scope exclusions listed above, there may be further restrictions to the supplementary survey sample for particular topics.

ESTIMATION METHODS

21.0.15 Post-stratification estimation techniques are generally used, with adjustment to account for persons enumerated outside their State of usual residence.

21.0.16 Supplementary survey weights use labour force estimates, referred to in this context as pseudo-benchmarks, to supplement independent demographic benchmarks (see Chapter 18 for further information on population benchmarks used in household surveys). Supplementary surveys may also incorporate other auxiliary information on target populations - for instance benchmarks for the Indigenous population, or the private dwelling population - into estimates.

21.0.17 The post-stratification variables generally used are:

- state/territory of usual residence;
- part of State of usual residence (capital city, rest of State);
- labour force status;
- sex; and
- age (age groupings generally correspond with those used in post-stratification for the Labour Force Survey).

TIME SERIES ESTIMATES

21.0.18 Seasonally adjusted and trend estimates are not produced for supplementary surveys.

RELIABILITY OF THE ESTIMATES

21.0.19 Estimates from supplementary surveys are subject to both sampling and non-sampling error (see Chapter 17 for more detail). The relative standard errors of survey estimates are published in each supplementary survey publication.

21.0.20 A 'split-halves' variance estimator, with a Taylor series adjustment for the post-stratified estimate, is used to calculate estimates of variance (see Chapter 17 for more detail).

DATA COMPARABILITY OVER TIME

21.0.21 Estimates from successive supplementary surveys on a given topic may not be strictly comparable over time due to changes in survey scope and concepts measured. In addition, changes affecting the Labour Force Survey sample and estimation processes will affect supplementary survey estimates. For further discussion of changes to a particular labour topic see Sections 1 to 16 of this chapter.

FURTHER INFORMATION

21.0.22 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email labour.statistics@abs.gov.au.

21.1 Career Experience

CHAPTER 21.1 CAREER EXPERIENCE

INTRODUCTION

21.1.1 This survey was first conducted in February 1993 and again in November 1996, 1998 and 2002. It collected information on the career experience of employees. Data collected in the survey are used in the formulation and monitoring of policy relating to workplace flexibility, barriers to career development, and workers with family responsibilities. The ABS does not plan to conduct this survey again. Information related to changes with employer is available from Labour Mobility, Australia (cat. no. 6209.0). Information regarding absences following the birth of a child is available from Pregnancy and Employment Transitions, Australia (cat. no. 4913.0). Information on other long-term absences and whether work performance is formally assessed are no longer collected.

21.1.2 This section describes only those aspects of the methodology that are unique to this survey, and hence should be used in conjunction with the overview part of this chapter, which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.1.3 Data are published in Career Experience, Australia (cat. no. 6254.0). More detailed data are available on request.

21.1.4 The main populations of interest are employees (excluding those aged 15-19 who are still attending school), and employees with children under 12 years of age. Estimates are produced on an original basis (i.e. not seasonally adjusted) only and include:

Socio-demographic information

Sex, age, marital status, relationship in household, family, geographic region, educational attainment, birthplace and year of arrival in Australia.

Employees

Employment characteristics (industry, occupation, sector, full-time/part-time status, permanent/casual status); hours worked in reference week; usual weekly earnings; size of employees workplace; changes in jobs held with current employer over previous 12 months (promotions, transfers, changes in duties, level of responsibility, and locations of work); duration of employment and expected future duration of employment with current employer; types of training received/supported by current employer; age of youngest child; and whether had a break from work of six months or more.

Employees with children aged under 12 years

Use of formal childcare; if not using formal childcare - reason why; if using formal childcare - type of childcare used; and number of employees in household.

Employees with children aged under 6 years

Whether took break from work when youngest child was born, and if so details of that break (duration and type of leave taken).

21.1.5 Data collected in the survey are compiled according to concepts and definitions outlined in Chapter 4 (Employment measures and classifications), Chapter 12 (Employee remuneration) and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.1.6 The scope of this survey is restricted to persons aged 15 years and over. Also excluded are persons aged 15-19 years who are still attending school. The standard scope restrictions for supplementary surveys outlined in the overview part of Chapter 21 also apply to this survey.

SAMPLE DESIGN

21.1.7 In addition to the sample restrictions for all supplementary surveys, a further three-eighths of the private dwelling sample of the Labour Force Survey are excluded from the sample for this survey.

DATA COMPARABILITY OVER TIME

21.1.8 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Over the time the survey has been conducted there have been some changes to the scope and sample size. These changes mean that the standard errors for the survey differ over time. The effect on estimates of the change in scope is considered to have been small. Changes affecting the Labour Force Survey may also affect this survey. Such changes are outlined in Chapter 18 and are not repeated here.

1993

Initial survey conducted (February) - data published in Career Experience, Australia (cat. no. 6254.0).

1996

Survey conducted (November).

Sample reduced to four-eighths of the Labour Force Survey sample.

Data items no longer available from this survey:

- size of location (all employees);
- whether work performance formally appraised by current employer in the last 12 months;
- whether intend to stay with current employer for the next 12 months;
- whether used different computers, computer-based equipment or computer packages with current employer in the last 12 months;
- whether used other machinery, tools or equipment with current employer in the last 12 months;
- whether on paid or unpaid leave during the most recent break from work;
- main field of study; and
- place of usual residence 12 months ago.

Data items replaced by the data item 'Whether changed hours usually worked with current employer in the last 12 months':

- whether changed from full-time to part-time work with current employer in the last 12 months;
- whether changed from part-time to full-time work with current employer in the last 12 months; and
- whether had other change in hours usually worked with current employer in the last 12 months.

1998

Survey conducted (November).

Data items no longer available from this survey for persons aged 70 and over:

- educational attainment; and
- usual weekly earnings in current position.

Additional data items collected for this survey:

- size of location (all employees);
- whether work performance formally appraised by current employer in the last 12 months;
- expected future duration of main job;
- reason expected duration of main job is less than 12 months;
- type of leave taken for most recent break from work;
- main field of study; and
- place of usual residence 12 months ago.

2002

Survey conducted (November).

Data items no longer available from this survey :

- permanent or casual status; and
- expected future duration of main job.

Additional data items collected for this survey:

- provision of paid sick leave;
- provision of paid holiday leave;
- provision of paid maternity/paternity leave;
- level of highest non-school qualification;
- highest year of school completed;
- whether has a non-school qualification;
- whether promoted or transferred with current employer in the last 12 months;
- whether changed hours or location with current employer;
- whether studied or attended formal training; and
- whether has child(ren) under 12 years.

Country of birth data have been classified according to the Standard Australian Classification of Countries (SACC) 1998 (cat. no. 1269.0). Previous issues of Career Experience used the Australian Standard Classification of Countries for Social Statistics (ASCCSS) 1990 (cat. no. 1269.0).

FURTHER INFORMATION

21.1.9 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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21.2. Employee Earnings, Benefits and Trade Union Membership

CHAPTER 21.2. EMPLOYEE EARNINGS, BENEFITS AND TRADE UNION MEMBERSHIP

INTRODUCTION

21.2.1 This survey collects information about employees' weekly earnings, leave entitlements, employment benefits and trade union membership. The survey was conducted on an annual basis, in August of each year, with the final publication released for the August 2013 reference period. The key elements of the survey will be collected in the Characteristics of Employment (COE) Supplementary Survey (cat. no. 6333.0) conducted annually from August 2014. Further information on what detail is collected in COE is available in the final release of the Employee Earnings, Benefits and Trade Union Membership, Appendix Forthcoming Changes to ABS Labour Force and Supplementary Surveys .

21.2.2 The collection of a range of socio-demographic and labour force characteristics makes the survey extremely valuable for comparing and analysing the distribution of weekly earnings across employees. Data are used in the development and review of wages and labour

market policies, and in wage negotiation processes. The survey is the only frequent source of data on the distribution of trade union members by socio-demographic and labour force characteristics.

21.2.3 This section describes only those aspects of the methodology that are unique to this survey, and hence should be used in conjunction with the overview part of this chapter, which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.2.4 Data from the survey have been published in Employee Earnings, Benefits and Trade Union Membership, Australia (cat. no. 6310.0) since 1998. More detailed time series data on earnings and trade union membership are available from the ABS website. Data from earlier surveys of weekly earnings, trade union members and employment benefits were published in separate publications (see paragraph 21.2.8 for further information). More detailed data are available on request.

21.2.5 The main population of interest is employees (including Owner Managers of Incorporated Enterprises). Employees who are paid solely in kind are excluded. Estimates are produced on an original basis only (i.e. not seasonally adjusted) and include:

Socio-demographic information

Sex; age; marital status; relationship in household; state or territory of usual residence; and country of birth and year of arrival in Australia.

Employment characteristics

Occupation; industry; hours worked; full-time or part-time status; sector; size of employees' workplace; and duration with current employer/business.

Employee earnings

Weekly earnings distributions, mean and median weekly earnings (in main and all jobs); and frequency of pay.

Leave entitlements

Paid sick leave; paid holiday leave; paid long service leave; and paid maternity/paternity leave.

Employment benefits received

A number of benefits are collected on an irregular basis, including: vehicle or vehicle costs; transport to and from work; communication and/or IT devices; child care or child's education costs; finance; gym membership; shares, rights or options; housing and/or utilities; health fund memberships; and union memberships or other professional association memberships.

Trade Union Membership

Trade Union membership in main job; trade union member not necessarily in connection with main job; length of current trade union membership; and duration since previously a trade union member.

21.2.6 Data collected in the survey are compiled according to concepts and definitions outlined in Chapter 4 (Employment measures and classifications), Chapter 12 (Employee remuneration), Chapter 13 (Industrial relations) and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.2.7 The scope of this survey is restricted to persons aged 15 years and over. The standard scope restrictions for supplementary surveys outlined in Chapter 21 also apply to this survey.

DATA COMPARABILITY OVER TIME

21.2.8 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Over the time the survey has been conducted there have been some changes to the scope and sample size. These changes mean that the standard errors for the survey differ over time. The effect on estimates of the change in scope is considered to have been small. Changes affecting the Labour Force Survey may also affect this survey. Such changes are outlined in Chapter 20 and are not repeated here. The main changes to the Employee Earnings, Benefits and Trade Union Membership survey are outlined below.

1975

Annual survey commenced (August) - preliminary data published in **Weekly Earnings of Employees (Distribution), Preliminary** (Ref. no. 6.50) and final data in **Weekly Earnings of Employees (Distribution)** (Ref. no. 6.51). Earnings and hours worked data related to 'all jobs'.

1976

Survey expanded, additional data collected included 'earnings in main job' and 'hours paid'

1977

Catalogue numbers replaced reference numbers - cat. no. 6309.0 (preliminary data) and cat. no. 6310.0 (final data).

1983

Survey expanded, additional data on employment benefits collected annually and published separately - preliminary data published in **Employment Benefits, Australia, Preliminary** (cat. no. 6332.0) and final data in **Employment Benefits, Australia** (cat. no. 6334.0). Data on employment benefits previously collected in February to May 1979 and published under the same titles. Note: data from the 1979 survey related to employees working 20 or more hours per week; from 1983 data related to all employees, but school students

were assumed not to receive benefits other than leave (paid holiday, paid sick and long service), and goods and services benefits.

1984

Preliminary publication for weekly earnings discontinued.

1985

Employees on workers' compensation excluded from estimates.

1986

Survey expanded, additional data on trade union membership in main job collected biennially and published separately - data published in **Trade Union Members, Australia** (cat. no. 6325.0) (no preliminary publication). Data on trade union membership previously collected in November 1976, and March to May 1982 and published under the same title (with Ref. no. 6.65 in 1976). Note: estimates from the 1976 survey related to trade union membership in main job and also included trade union membership of some unemployed persons (in their most recent job); estimates from the 1982 survey were restricted to employed persons and related to trade union membership in any job.

1987

Definition of transport benefit broadened.

1988

Preliminary publication for employment benefits discontinued.

1990

Scope of survey restricted to persons aged 15-69 (for this year only).

1991

Survey month changed to July (for this year only) because of the August 1991 Census post-enumeration survey. Persons attending school were not asked questions about their employment benefits other than entitlements to leave (paid holiday, paid sick and long service), and goods and services benefits.

1992

Frequency of trade union membership data increased to annual. Data continued to be published separately on a biennial basis in **Trade Union Members, Australia** (cat. no. 6325.0) until 1996. Limited data were also published in **Weekly Earnings of Employees (Distribution), Australia** (cat. no. 6310.0) on alternate years (1993, 1995, 1997) until the publications were combined in 1998. Frequency of detailed employment benefits data reduced to biennial, with limited data collected on alternate years. Detailed data continued to be published separately in **Employment Benefits, Australia** (cat. no. 6334.0) until 1994. Limited data were also published in **Weekly Earnings of Employees (Distribution), Australia** (cat. no. 6310.0) in 1993. Note: in years when detailed employment benefits data were collected, persons attending school were not asked questions about their employment benefits other than entitlements to leave (paid holiday, paid sick and long service) and superannuation; in years when limited data were collected all persons were asked only about entitlements to leave (as before) and superannuation.

1994

Sample restricted to no more than seven-eighths of the Labour Force Survey sample. Frequency of detailed employment benefits data reduced to irregular, with limited data collected annually (for all persons in scope of survey). Detailed data published separately in 1994 in **Employment Benefits, Australia (cat. no. 6334.0.40.001)**. Limited data published annually from 1995 in **Weekly Earnings of Employees (Distribution), Australia** (cat. no. 6310.0.40.001). Standard Data Service replaced publication format.

1996

Earnings data not collected, due to Census post-enumeration survey. **Weekly Earnings of Employees (Distribution), Australia** (cat. no. 6310.0) not published. Trade union membership and limited employment benefits data published in **Trade Union Members, Australia** (cat. no. 6325.0). Publication format replaced Standard Data Service.

1997

Limited employment benefits and trade union membership data published in **Weekly Earnings of Employees (Distribution), Australia** (cat. no. 6310.0). Persons living in remote and sparsely settled areas excluded from scope.

1998

Separate publications for weekly earnings, employment benefits and trade union members discontinued and replaced with a combined publication - **Employee Earnings, Benefits and Trade Union Membership, Australia** (cat.no. 6310.0).

1999

Detailed employment benefits data collected for all persons in scope of survey.

2002

Definition of full-time or part-time status changed. Prior to 2002, full-time or part-time status in main job was based on self perception, however, from 2002 onwards it is based on the number of hours worked.

2004

Detailed employment benefits data collected for all persons in scope of survey.

2006

Share benefits data collected for all persons in scope of survey.

Occupation data classified according to the Australian and New Zealand Standard Classification of Occupations (ANZSCO), First Edition, 2006 (cat. no. 1220.0). This classification replaced the Australian Standard Classification of Occupations (ASCO), Second Edition, 1997 (cat. no. 1220.0). Data classified according to ASCO are available via spreadsheets on the ABS web site or can be obtained on request.

Industry data classified according to the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 (cat. no. 1292.0). This classification replaced the Australian and New Zealand Standard Industrial Classification (ANZSIC), 1993 (cat. no. 1292.0). Trade union membership and earnings data classified according to ANZSIC 1993 are available via spreadsheets on the ABS web site or can be obtained on request.

2007

From 2007 onwards, estimates of mean and median earnings include amounts salary sacrificed. This change was in accordance with the revised conceptual framework for measures of employee remuneration, as outlined in Information paper: Changes to ABS Measures of Employee Remuneration (cat. no. 6313.0).

Estimates of mean and median weekly earnings provided in publications prior to 2007 exclude amounts salary sacrificed by employees. As a result, there is a break in series, so care should be taken when comparing earnings estimates from 2007 with estimates in previous publications.

Information on leave entitlements no longer collected for owner-managers of incorporated enterprises.

Share benefits data collected for all persons in scope of survey.

2008

Additional data items collected including 'Age of youngest child', 'Number of dependent children under 15 years', 'Age and whether attending an educational institution', 'Duration of employment in main job'.

2009

Detailed employment benefits data collected. Additional data items on trade union membership history included. Module on education attainment also included (for 2009 only).

2010

The Employee Benefits module that captured information on employment benefits received in the last 12 months was not collected.

The data item 'Duration of employment in main job' was renamed to 'Continuous duration with current employer/business'. The data item 'Future employment expectations' was expanded to 'Expected future duration with current employer/business' and 'Reason expected duration with current employer/business fewer than 12 months' to be consistent with other labour supplementary surveys.

2011

Table 12 of the 2010 publication is split into two tables. Additional information is presented on weekly earnings in percentiles and deciles in tables 2, 7, 8 and 9.

2012

Summary information on real earnings (earnings deflated by Consumer Price Index) produced for the first time.

2013

Data collected using on line self-completion for the first time (in addition to the previous telephone and face-to-face interviews). For more information, see the article in Labour Force, Australia, April 2013 (cat. no. 6202.0) Transition to Online Collection of the Labour Force Survey.

This is the final issue of the Employee Earnings, Benefits and Trade Union Memberships, Australia (cat. no. 6310.0) publication.

FURTHER INFORMATION

21.2.9 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or at <labour.statistics@abs.gov.au>.

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21.3. Forms of Employment

CHAPTER 21.3. FORMS OF EMPLOYMENT

INTRODUCTION

21.3.1 The Forms of Employment Survey was first conducted in August 1998. The survey was then conducted in November 2001, 2004 and 2006, and has been conducted on an annual basis since November 2006, with the final survey in November 2013. The key elements of the survey will be collected in the Characteristics of Employment (COE) Supplementary Survey (cat. no. 6333.0) to be conducted annually from August 2014. Further information on what detail is collected in COE is available in the final release of the Forms of Employment, Appendix Forthcoming Changes to ABS Labour Force and Supplementary Surveys.

21.3.2 The Forms of Employment Survey presents information about employed persons (excluding contributing family workers) aged 15 years and over and their employment arrangements. Topics covered in this survey include: the different types of employment arrangements including fixed-term contracts (for employees), casual employment and leave entitlements, independent contractors, use of labour hire firms/employment agencies (as part of a three-yearly module); and employment characteristics such as hours worked, industry and occupation. The survey also provides a range of information on demographic and employment characteristics of people with different employment types.

21.3.3 This section describes only those aspects of the methodology that are unique to this survey, and should be used in conjunction with the overview part of this chapter which outlines the survey methodology used in supplementary surveys (Chapter 21).

SURVEY OUTPUT

21.3.4 Data from the survey are published in Forms of Employment, Australia (cat. no. 6359.0). More detailed estimates are available on request, and through confidentialised unit record files from the 1998 survey (cat. no. 6359.0.30.001) and 2008 survey (cat. no. 6202.0.30.007).

21.3.5 The main population of interest is employed persons (excluding those who were contributing family workers in their main job). Estimates are produced on an original basis only (i.e. not seasonally adjusted) and include:

Socio-demographic information

State or territory of usual residence; sex; age; area of usual residence; region of usual residence; marital status; relationship in household; country of birth and year of arrival; and number of children in family aged under 15 years.

Employment characteristics

Full-time or part-time status; occupation of main job; industry of main job; hours actually worked; hours usually worked; form of employment; continuous duration with current employer/business; expected future duration with current employer/business; reason expected duration with current employer/business less than one year; whether earnings/income varied from one pay period to the next; whether usually works the same number of hours each week; whether usually required to be on call or stand-by; whether had any say in start and finish times; days and number of days usually worked each week; and whether worked weekdays and/or weekends.

Employees

Whether had paid leave entitlements; whether entitled to paid long service leave; whether entitled to paid maternity/paternity leave; whether employment had a set completion date/event; length of set employment completion date/event from the date of interview; whether worked on a fixed-term contract; whether expected contract to be renewed; and whether considered job to be casual.

Independent Contractors

Whether usually able to work on more than one active contract; whether had more than one contract for work in reference week; whether contract prevented doing similar work for multiple clients/employers; whether able to (sub)contract own work; main reason unable to (sub)contract own work; whether had authority over own working procedures; who had authority over own working procedures; number of employees; whether responsible for organising own workers' compensation; whether responsible for organising own liability insurance; and whether responsible for organising own superannuation contributions.

21.3.6 Data collected in the survey are compiled according to concepts and definitions outlined in Chapter 4 (Employment measures and classifications), and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.3.7 The scope of this survey is restricted to employed persons aged 15 years and over. The standard scope restrictions for supplementary surveys outlined in the overview part of Chapter 21 (Labour Force Supplementary Surveys) also apply to this survey.

DATA COMPARABILITY OVER TIME

21.3.8 In order to provide a high degree of consistency and comparability over time, changes to survey methods, concepts, data item definitions, the frequency of collection, and analysis methods are made as infrequently as possible. Changes to the scope and sample size of the survey mean that the standard errors for the survey differ over time. The change in scope had a small impact on estimates. Changes affecting the Labour Force Survey may also affect this survey. Such changes are outlined in Chapter 20. Labour Force Survey and are not repeated here. The main changes to the Forms of Employment Survey are outlined below.

1998

Survey conducted in August.
Persons working for payment in kind excluded from survey.

2001

Survey moved to November.
Labour hire module collected.
Scope of survey restricted to persons aged 15-69 years.

2004

Scope of survey expanded to include all persons aged 15 years and over.
People working for payment in kind included in the survey.
Revised employment type classification implemented.
Survey content reduced.

2006

In previous surveys, people who received both paid sick and paid holiday leave were not asked if they worked on a contract basis. In 2006, all employed people were asked if they worked on a contract basis.
In previous surveys, only information on hours actually worked was collected. From 2006, information on both hours actually worked and hours usually worked were collected.

Occupation data were classified according to the ANZSCO—Australian and New Zealand Classification of Occupations, First Edition, 2006 (cat. no. 1220.0). This classification replaced the ASCO—Australian Standard Classification of Occupations, Second Edition, 1997 (cat. no. 1220.0). Data classified according to the ASCO are available on request.

Industry data were classified according to the ANZSIC—Australian and New Zealand Standard Industrial Classification, 2006 (cat. no. 1292.0). This classification replaced the ANZSIC—Australian and New Zealand Standard Industrial Classification, 1993 (cat. no. 1292.0). Data classified according to the ANZSIC 1993 are available on request.

2007

Only owner managers (both of incorporated and unincorporated enterprises) were asked if they worked on a contract basis, while employees (excluding owner managers of incorporated enterprises) were asked if they worked on a fixed-term contract.

2008

'Status in employment' and 'Employment type in main job' classifications used in previous surveys replaced with the 'Form of employment in main job' classification. Form of employment in main job divides employed people into three categories: Employees, Independent contractors and Other business operators. This resulted in a break in series for employees. Data classified according to 'Status in employment' and 'Employment type' are available on request.

Owner managers (of incorporated enterprises and unincorporated enterprises) no longer asked if they worked on a contract basis. Instead, a series of screening questions have been asked of all employed people to identify independent contractors (for the 'Form of employment' classification).

Three-yearly labour hire module collected.

2011

Three-yearly labour hire module collected. Additional information was also collected from persons who found their current job through a labour hire firm/employment agency.

2013

Data collected using on line self-completion for the first time (in addition to the previous telephone and face-to-face interviews). For more information, see the article in Labour Force, Australia, April 2013 (cat. no. 6202.0) Transition to Online Collection of the Labour Force Survey.

This is the final issue of the Forms of Employment, Australia (cat. no. 6359.0) publication.

FURTHER INFORMATION

21.3.9 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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21.4. Job Search Experience of Unemployed Persons

CHAPTER 21.4. JOB SEARCH EXPERIENCE OF UNEMPLOYED PERSONS

INTRODUCTION

21.4.1 This survey provided information about the experiences of unemployed people in seeking work, in terms of the steps they have taken to find work and the difficulties they have encountered in finding work. The survey commenced in 1976 and was conducted annually until 2001.

21.4.2 In 2002, the survey was combined with the survey of Successful and Unsuccessful Job Search Experience, Australia (see Chapter 21.13), forming the annual survey of Job Search Experience (see Chapter 21.17).

21.4.3 This section describes only those aspects of the methodology that are unique to this survey, and hence should be used in conjunction with Chapter 21, which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.4.4 Data from the survey were published in Job Search Experience of Unemployed Persons, Australia (cat. no. 6222.0). More detailed data are available on request.

21.4.5 The main populations of interest was the unemployed. Estimates included:

Socio-demographic information

Sex; age; marital status; relationship in household; state or territory of usual residence (including whether in a capital city); geographic region of usual residence (LFS dissemination regions); country of birth; year of arrival in Australia; whether obtained a non-school qualification in Australia or overseas; and level of highest educational attainment.

Unemployed persons

Whether looking for full-time or part-time work; duration of unemployment; all active steps taken to find work; whether would move interstate/intrastate if offered a suitable job (including whether has applied for a job interstate/intrastate); number of offers of employment in current period of unemployment; difficulties in finding work; number of spells of looking for work in the previous 12 months; and number of weeks spent looking for work in the previous 12 months.

Unemployed persons who have held a job in the past

Details of last job (whether worked full-time, industry, occupation, duration, reason for ceasing, status in employment).

Unemployed persons who were an employee in their last job and who ceased that job in the last two years

Usual gross weekly pay in last job.

21.4.6 Data collected in this survey were compiled according to concepts and definitions outlined in Chapter 6 (Unemployment) and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.4.7 The scope of this survey is restricted to persons aged 15 years and over. The standard scope restrictions for supplementary surveys outlined in Chapter 21 also apply to this survey.

COLLECTION METHODOLOGY

21.4.8 Personal interviews were used to collect information for the survey. Both face to face and telephone interviewing techniques were used.

DATA COMPARABILITY OVER TIME

21.4.9 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Over the time the survey was conducted there were some changes to the scope and sample size. These changes mean that the standard errors for the survey differed over time. The effect on estimates of the change in scope is considered to have been small. Changes affecting the Labour Force Survey may also have affected this survey. Such changes are outlined in Chapter 20 and are not repeated here.

1976

Initial two surveys conducted in May and November - preliminary data for each were published in *Persons Looking for Work, (Preliminary)* (ref. no. 6.56) and final data for each in *Persons Looking for Work* (ref. no. 6.60) (Footnote 1).

1977

Annual collection commenced (May).

The final publication reference number (ref. no. 6.60) was replaced with a catalogue number (cat. no. 6222.0).

1978

Collection month set as July. Sample redesigned and reselected using information from the 1976 Census of Population and Housing population estimates.

Preliminary publication (ref. no. 6.56) was not released.

1979

The preliminary publication reference number (ref. no. 6.56) was replaced with a catalogue number (cat. no. 6221.0).

1981

Survey conducted in June (this year only). Both preliminary and final results published.

1982

Publication title change - final data published in *Characteristics of Persons Looking for Work, Australia* (cat. no. 6222.0).

1983

Publication title change - preliminary data published in *Characteristics of Persons Looking for Work, Australia, (Preliminary)* (cat. no. 6221.0).

1984

Publication title change - preliminary data published in *Job Search Experience of Unemployed Persons (excluding persons who were stood down), Australia, Preliminary* (cat. no. 6221.0) and final data in *Job Search Experience of Unemployed Persons (excluding persons who were stood down), Australia* (cat. no. 6222.0).

Scope changed to exclude persons who were stood down for less than 4 weeks.

Marital status was altered to require that a respondent's spouse must have the same usual residence at the time of the survey in order to be classified as 'married'. Persons who were separated from their spouse were classified as 'not-married'.

Population benchmarks were updated to reflect the 1981 Census of Population and Housing population estimates. These were also compiled according to 'place of usual residence', rather than 'place of enumeration'.

1985

Publication title change - the phrase '*excluding persons who were stood down*' was removed from both publication titles.

1986

Survey conducted in June (this year only).

Estimates based on a revised Labour Force Survey (introduced April 1986). This expanded the definition of 'employment' and resulted in a lower estimate of 'unemployed persons' in this publication. Information relating to the respondent's previous full-time job in the last two years was altered. The main reason for leaving this job was restructured and published with a clearer voluntary/involuntary distinction; occupation was published instead of industry of last job.

1987

Survey not conducted.

1988

Publication title change - the phrase '(preliminary)' in the preliminary publication (cat. no. 6221.0) was replaced with 'summary'.

Preliminary publication then discontinued.

Sample redesigned and reselected using information from the 1986 Census of Population and Housing population estimates.

1989

Survey not conducted.

1991

Survey conducted in June (this year only).

1993

Australian Bureau of Statistics Classification of Qualifications (ABSCQ) (cat. no. 1262.0) was adopted. Level of attainment and field of

study were collected separately. Persons who received a qualification from a course of study less than one semester full-time duration are excluded.

1994

Sample restricted to seven-eighths of the Labour Force Survey sample. 'Family status' data-item replaced by 'Relationship in Household'. Estimates based on 1991 *Census of Population and Housing* population benchmarks.

1995

Standard Data Service replaced publication format (cat. no. changed to 6222.0.40.001).

1996

Publication format replaced Standard Data Service (cat. no. changed to 6222.0).

1997

Persons living in remote and sparsely settled areas excluded from scope. Occupation data classified according to the second edition of the Australian Standard Classification of Occupations (ASCO SE) (cat. no. 1220.0).

1998

Change to government administration of job seeking arrangements. The former Commonwealth Employment Service (CES) was split, some responsibilities being moved to Centrelink and the privatised Job Network created, causing a slight discontinuity in some estimates.

1999

Estimates based on 1996 *Census of Population and Housing* population benchmarks.

2000

Details of last full-time job were not collected (for this year only). This was due to a 'statistical impact study' on the proposed LFS questionnaire.

2001

Some minor changes were made to the definition of unemployed. The new definition excluded persons who were stood down and persons unavailable to start work due to temporary illness and may have included some contributing family members away from work. Details of last job were collected (regardless of full-time/part-time status).

The Australian Standard Classification of Education (ASCED) (cat. no. 1272.0) was implemented to replace the Australian Bureau of Statistics Classification of Qualifications (ABSCQ) (cat. no. 1262.0).

Final survey. Replaced by Job Search Experience Survey from July 2002. See Chapter 21.17. Job Search Experience.

FURTHER INFORMATION

21.4.10 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

FOOTNOTE

1. The online [Historical Publications Index](#) provides a catalogue of publications released by the Australian Bureau of Statistics, and its predecessor the Commonwealth Bureau of Census and Statistics from 1901 - 1993. Those titles not digitised are available in print or microfiche format from the National Library of Australia, State libraries and many Australian university libraries. The ABS Library in Canberra also holds a deposit collection of all ABS publications which can be accessed by appointment. Contact the ABS [National Information and Referral Service](#) for further information. <back

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21.5. Labour Force Experience

CHAPTER 21.5. LABOUR FORCE EXPERIENCE

INTRODUCTION

21.5.1 The Labour Force Experience Survey collects a range of data about the labour force experiences of people aged 15 years and over during the 12 months prior to the survey date. The survey provides information on time spent in labour force activities, including episodes of working or looking for work, and time spent out of the labour force. The survey was first conducted in 1969, and was conducted on a two-yearly basis between February 1995 and February 2011. The ABS does not plan to conduct this survey again.

21.5.2 Estimates from the survey are used to monitor the extent and nature of labour force participation over an extended period and to complement 'gross flows' estimates from the monthly Labour Force Survey (see Chapter 20 for information on gross flows) in the analysis of labour market dynamics. The information is used to construct profiles of various groups within the labour force, particularly those looking for work.

21.5.3 Labour force activity over a 12-month period was determined from a reduced set of questions compared to those used in the monthly Labour Force Survey (LFS). For this reason, the terms **worked** and **looked for work** are used, rather than the more precisely defined terms employed and unemployed, as used in the LFS. The concepts worked and looked for work are then used to determine whether a person was in the labour force during the year.

21.5.4 This section describes only those aspects of the methodology that are unique to this survey and should be used in conjunction with Chapter 21, which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.5.5 Data from the survey are published in Labour Force Experience, Australia cat. no. 6206.0. The ABS has a range of data available on request from the Labour Force Experience Survey.

21.5.6 Estimates are produced on an original basis only (i.e. are not seasonally adjusted) and include:

Socio-demographic information

Sex; age; marital status; relationship in household; state or territory of usual residence (including whether a capital city); country of birth; and period of arrival in Australia.

All persons

Labour force status (at survey date and during the year); time in the labour force during the year; whether worked at some time during the year; whether looked for work at some time during the year.

Persons who were employed at some time during the year

Status in employment; occupation; industry; time worked during the year; full-time or part-time status of time worked; number of employers/businesses during the year; time worked with current employer/business; and whether had an unpaid absence from work during the year.

Persons who looked for work at some time during the year

Time spent looking for work during the year (including Mean and Median duration); and number of spells of looking for work during the year

Persons who were not in the labour force at some time during the year

Time not in the labour force during the year; and main activity when not in the labour force.

21.5.7 Data collected in the survey are compiled according to concepts and definitions outlined in Chapter 2 (Currently economically active population), Chapter 4 (Employment measures and classifications), Chapter 9 (Usually economically active population) and Chapter 16 (Other Classifications used in Labour Statistics).

SCOPE

21.5.8 The scope of the Labour Force Experience Survey was expanded in February 2007 to include all people aged 15 years and over, while previously only persons between 15 and 69 were included. The standard scope restrictions for supplementary surveys outlined in Chapter 21 also apply to this survey.

DATA COMPARABILITY OVER TIME

21.5.9 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Over the time the survey has been conducted there have been some changes to the scope and sample size. These changes mean that the standard errors for the survey differ over time. The effect on estimates of the change in scope is considered to have been small. Changes affecting the Labour Force Survey may also affect this survey. Such changes are outlined in Chapter 20. Labour Force Survey and are not repeated here.

1969

Initial survey conducted (February) - preliminary data in *Labour Force Experience, Preliminary* (Ref. no 6.38) (footnote 1) and final data in *Labour Force Experience* (Ref. no 6.26).

Survey reference period - preceding calendar year.

Sample size restricted to three-quarters of the Labour Force Survey sample.

1973

Survey conducted (February).

1975

Annual collection commenced (February).

1978

Survey not conducted (this year only).

1979

Catalogue numbers replaced reference numbers - cat. no. 6205.0 (preliminary data) and cat. no. 6206.0 (final data).

1981

Change to survey reference period - beginning of February in previous year to the end of the reference week.

1982

Change to the classification of some persons (this year only) - persons who reported that they had been in their current job for one year and also reported that they did not work for the entire reference period were **not** classified as 'not in the labour force' for the remainder of the period (as they were in other years).

1983

Change to survey reference period - 52 weeks to the end of the week prior to interview.

1988

Preliminary publication discontinued.

1989

Sample size reduced to one-half of the Labour Force Survey sample.

1990

Change to survey month (March).

Persons aged 70 and over excluded from scope of the survey.

Sample size increased to full Labour Force Survey sample.

1995

Annual collection ceased - replaced by biennial collection (February).

Sample restricted to no more than seven-eighths of the Labour Force Survey sample.

Standard Data Service replaced publication format (cat. no. changed to 6206.0.40.001).

1997

Publication format replaced Standard Data Service (cat. no. changed to 6206.0).

Persons living in remote and sparsely settled areas excluded from scope.

2003

The data item 'number of employers/businesses during the year' was derived differently from previous surveys. Prior to 2003, where they could be identified, multiple jobs of multiple job-holders were excluded from this data item. From 2003, all employers/businesses held by all persons were included.

2005

Data items related to educational attainment and state/territory of usual residence 12 months ago no longer available.

2007

Scope of the survey expanded to include all persons aged 15 years and over, where it previously excluded those over 69.

2009

Changes were made to the categories for the data item 'Main activity when not in the Labour Force' with the category 'Home duties or child care' split into two separate categories: 'Home duties' and 'caring for children'. The categories 'Own illness or injury' and 'own disability or handicap' were replaced by 'own short-term illness or injury' and 'own long-term health condition or disability' respectively. The sample for the Labour Force Experience Survey was approximately one-third smaller than the sample size in February 2007, as a result of reductions in the Labour Force Survey sample size.

FURTHER INFORMATION

21.5.10 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

FOOTNOTE

1. The online [Historical Publications Index](#) provides a catalogue of publications released by the Australian Bureau of Statistics, and its predecessor the Commonwealth Bureau of Census and Statistics from 1901- 993. Those titles not digitised are available in print or microfiche format from the National Library of Australia, State libraries and many Australian university libraries. The ABS Library in Canberra also holds a deposit collection of all ABS publications which can be accessed by appointment. Contact the ABS National Information and Referral Service for further information. <Back

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21.6. Characteristics of Recent Migrants

CHAPTER 21.6. CHARACTERISTICS OF RECENT MIGRANTS

INTRODUCTION

21.6.1 This survey collects data on the labour force status and other characteristics of people who recently migrated to Australia. The survey also collects information on temporary residents who planned to stay in Australia for 12 months or more. The information collected enables an assessment of the labour market experience of recent migrants. The survey was conducted on an irregular basis between 1984 and 2004, and is currently conducted every 3 years on a sample of recent permanent migrants and temporary residents. In 2010 the name of the survey changed from *Labour Force Status and Other Characteristics of Recent Migrants* to *Characteristics of Recent Migrants*.

21.6.2 This section describes only those aspects of the methodology that are unique to this survey, and should be used in conjunction with Chapter 21, which outlines the survey methodology used in the supplementary surveys.

SURVEY OUTPUT

21.6.3 Data from the survey are published in *Characteristics of Recent Migrants, Australia* (cat. no. 6250.0). More detailed data are available on request.

21.6.4 The main populations of interest are persons who migrated to Australia in the last ten years who had obtained permanent Australian resident status, as well as temporary residents of Australia for 12 months or more. Estimates are produced on an original basis only (i.e. are

not seasonally adjusted) and include:

Socio-demographic information

Sex; age group on arrival; marital status; relationship in household; size of household; state or territory of usual residence (including whether in a capital city); whether born in Australia; whether born in English speaking country; country of birth (broad geographic area); and labour force status.

Migrants and temporary residents

Year of arrival; main language spoken on arrival; proficiency in spoken English on arrival; main language currently spoken at home; current proficiency in spoken English; whether an Australian citizen; type of visa on arrival to live in Australia; type of visa at survey date; initial residency status; current (at survey date) residency status; whether left a paid job when came to live in Australia; whether has had a paid job since arriving in Australia to live; whether main applicant on initial visa application; and whether main applicant on current visa application.

...with a non-school qualification obtained before arrival or since arrival

Level of highest non-school qualification obtained before arrival; main field of highest non-school qualification obtained before arrival; whether has applied for highest non-school qualification to be assessed for recognition in Australia; level of highest non-school qualification obtained since arrival; and main field of highest non-school qualification obtained since arrival.

...who had a job before arrival or have worked since arrival

Occupation in main job just before arrival; whether occupation in main job just before arrival is same as current occupation in main job; number of jobs held since arriving in Australia; occupation in first job held in Australia; whether worked full time or part time in first job held in Australia; whether used highest pre-migration non-school qualification obtained before arrival in first job held in Australia; whether tried to find work more suited to highest pre-migration non-school qualification when working in first job held in Australia; whether experienced difficulty finding first job held in Australia; all difficulties (and main difficulty) experienced finding first job held in Australia; whether received help finding first job held in Australia; all sources of help in finding first job held in Australia; whether would have preferred to work more hours in first job held in Australia; and sources of household income (main and all).

...who are currently employed

Occupation in current job; industry of current job; status in employment; full time or part time status; whether multiple job holder; hours worked in current job; whether prefers more hours in current job; whether used highest pre-migration non-school qualification obtained before arrival in current job; whether tried to find work more suited to highest pre-migration non-school qualification since commencing current job; and whether experienced difficulty finding current job held in Australia.

...with a permanent visa

Whether temporary resident before becoming a permanent resident.

...who are currently not in the Labour Force or without a non-school qualification

Whether looked for work since arriving in Australia; main reason for not actively looking for work; and whether studying full-time.

21.6.5 Data collected in the survey are compiled according to concepts and definitions outlined in Chapter 2 (Currently economically active population), Chapter 4 (Employment measures and classifications) and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.6.6 This survey is restricted to people who migrated to Australia within the last 10 years were aged 15 years or over on arrival, were not an Australian or New Zealand citizen on arrival, and have permanent Australian resident status. Data was also collected for temporary residents of Australia for 12 months or more. The standard scope restrictions for supplementary surveys outlined in Chapter 21 also apply to this survey.

DATA COMPARABILITY OVER TIME

21.6.7 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Over the time the survey has been conducted there have been some changes to the scope and sample size. These changes mean that the standard errors for the survey differ over time. The effect on estimates of the change in scope is considered to have been small. Changes affecting the Labour Force Survey may also affect this survey. Such changes are outlined in Chapter 20 and are not repeated here.

1984

Initial survey conducted (March) - preliminary data published in *Characteristics of Migrants Aged 18 Years and Over at Time of Arrival and Who Arrived After 1960, Australia, Preliminary* (cat. no. 6249.0) (footnote 1) and final data in *Characteristics of Migrants Aged 18 Years and Over at Time of Arrival and Who Arrived After 1960, Australia* (cat. no. 6250.0).

Scope restricted to adult migrants who arrived after 1960.

1987

Survey conducted (March) - data published in *Labour Force Status and Other Characteristics of Migrants, Australia* (cat. no. 6250.0). Preliminary publication discontinued.

Survey expanded to collect more data from couples, enabling wife to be classified as principal applicant for migration if this was the case.

1990

Survey conducted (September) - scope revised - adult migrants aged 18 years and over on arrival who arrived in Australia after 1970. Unit record data released (for this year only). For further information see *Information Paper: Labour Force Status and Other Characteristics of Migrants, Australia, September 1990, Unit Record File on Magnetic Tape* (cat. no. 6251.0)

1993

Survey conducted September. *Australian Bureau of Statistics Classification of Qualifications (ABSCQ)* (cat. no. 1263.0) was adopted. Level of attainment and field of study were collected separately.

The *Australian Standard Classification of Countries for Social Statistics (ASCCSS)* (cat. no. 1269.0) was adopted to aggregate birthplace information. Historical estimates were revised to enable comparison.

1996

The month of collection was fixed as November for this and subsequent collections.

Data item 'Field of qualification obtained before migration' no longer available.

Sample restricted to seven-eighths of the Labour Force Survey sample.

1999

Scope revised - adult migrants who arrived in Australia after 1980 and were aged 18 years and over on arrival, excluding persons living in remote and sparsely settled areas.

2004

Scope revised - migrants who arrived in Australia after 1984 and were aged 15 years or over on arrival.

New population added - temporary residents who planned to stay in Australia for 12 months or more.

New data items relating to the residency status (including visa types) of the respondent added.

Data items related to whether the migrant had family or friends in Australia before migration and 'migration category' no longer available.

2007

Scope revised - included only migrants who arrived in Australia in the last 10 years (i.e. after 1997); who had obtained permanent Australian resident status, as well as people who were temporary residents of Australia for 12 months or more, and excluded those born in New Zealand, those holding New Zealand citizenship and those who held Australian citizenship prior to their arrival in Australia. Data items relating to the country of last residence were not collected.

Several new data items were collected including: whether had a job since arrival; the length of time before finding a job after arriving in Australia; selected details of the first job held in Australia; whether the highest non-school qualification obtained before arrival was used in the first job held in Australia; whether difficulties were experienced finding work in Australia and, whether help was received finding work in Australia.

2010

Scope updated - those who arrived in Australia after 2000; included migrants who currently reside in remote areas; and excluded those who held New Zealand citizenship on arrival (regardless of place of birth), but included persons born in New Zealand who did not hold New Zealand citizenship.

Several data items were added, including: whether would have preferred to have worked longer hours in first job in Australia, main reason not actively looking for work, and main language spoken on arrival. Other data items were removed, including data items related to the last visa held before becoming an Australian Citizen, the length of time spent overseas since most recent arrival, the highest year of school completed, and whether working full time or part time just before arrival. The 2007 data item "Type of visa on most recent arrival to live in Australia" was re-labelled to "Type of visa on arrival to live in Australia" (the data-item has remained the same as 2007).

FURTHER INFORMATION

21.6.8 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

FOOTNOTE

1. The online [Historical Publications Index](#) provides a catalogue of publications released by the Australian Bureau of Statistics, and its predecessor the Commonwealth Bureau of Census and Statistics from 1901 - 1993. Titles not digitised are available in print or microfiche format from the National Library of Australia, State libraries and many Australian university libraries. The ABS Library in Canberra also holds a deposit collection of all ABS publications which can be accessed by appointment. Contact the ABS National Information and Referral Service for further information.<back.

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21.7. Labour Mobility

CHAPTER 21.7 LABOUR MOBILITY

INTRODUCTION

21.7.1 The Labour Mobility survey provides detailed information about people who, over a twelve month period, either had a change of employer/business in their main job, or had some change in work with their current employer/business for whom they had worked for one year or more. The survey is the only source of data on labour force mobility over a twelve month period and is a major source of data for analysing the dynamic nature of the labour market.

21.7.2 The survey was first conducted in November 1972, was conducted annually between February 1975 and February 1992, and biennially between February 1994 and February 2012. The survey was conducted again in February 2013 following a twelve-month delay in implementing changes to the labour household surveys program.

21.7.3 This section describes only those aspects of the methodology that are unique to this survey, and should be used in conjunction with the overview part of this chapter, which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.7.4 Data are published in Labour Mobility, Australia (cat. no. 6209.0) and are available in a Confidentialised Unit Record File (CURF). For more information on the CURF, see Microdata: Labour Force Survey and Labour Mobility, Australia (cat. no. 6202.0.30.004). More detailed data are available on request.

21.7.5 Estimates are produced on an original basis only (i.e. not seasonally adjusted) and include:

Socio-demographic information

State or territory of usual residence; area of usual residence; region of usual residence; sex; marital status; relationship in household; country of birth and period of arrival; age and educational attainment;

Employment characteristics (at survey reference date)

Full-time or part-time status; occupation; industry; status in employment; hours actually worked; hours usually worked and employment type; whether had paid leave entitlements; duration with current employer/business;

Employment characteristics (12 months prior to survey reference date)

Full-time or part-time status; occupation; industry; status in employment; hours actually worked; hours usually worked and employment type; whether had paid leave entitlements; duration with current employer/business;

Persons who worked at some time during the year

Number of employers or businesses during the year; changes in work during the year; whether had a previous employer/business during the year;

Employees (excluding owner managers of incorporated enterprises) who had worked with their current employer for one year or more

Whether changed occupation with current employer in the last 12 months; whether changed usual hours worked with current employer in the last 12 months; previous occupation with current employer/business; previous usual hours worked with current employer; whether promoted with current employer/business in the last 12 months; whether transferred with current employer/business in the last 12 months; whether promoted and/or transferred with current employer/business in the last 12 months;

Persons who ceased a job during the year

Reason for ceasing last job; usual hours worked in last job; employment type in last job; duration of last job; when began last job; occupation of last job; industry of last job; whether entitled to paid sick leave in last job; whether entitled to paid holiday leave in last job; and whether had paid leave entitlements in last job;

21.7.6 Data collected in the survey are compiled according to concepts and definitions outlined in Chapter 4 (Employment measures and classifications) and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.7.7 The scope of this survey is restricted to persons aged 15 years and over. The standard scope restrictions for supplementary surveys outlined in Chapter 21 (Labour Force Supplementary Surveys) also apply to this survey.

21.7.8 From 2009 the scope of the survey included persons living in very remote areas of Australia, survey, except for people living in Aboriginal and Torres Strait Islander communities in very remote parts of Australia.

DATA COMPARABILITY OVER TIME

21.7.9 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Over the time the survey has been conducted, there have been some changes to the scope and sample size. These changes led to different standard errors for the survey over time. The effect on estimates of the change in scope is considered to have been small. Changes affecting the Labour Force Survey may also affect this survey. Such changes are outlined in Chapter 20 (Labour Force Survey) and are therefore not repeated here. Key survey specific changes are outlined below.

1972

Initial survey conducted (November).

Preliminary data published in *Labour Mobility, Preliminary* (Ref. no. 6.34) and final data in *Labour Mobility* (Ref. no. 6.43)

Survey reference period: preceding calendar year.

Sample size restricted to three-quarters of the Labour Force Survey sample.

Scope restricted to persons aged 15-69 years.

1975

Survey changed to February.

1979

Annual collection commenced.

Catalogue numbers replaced reference numbers: cat. no. 6208.0 (preliminary data) and cat. no. 6209.0 (final data).

1981

Change to survey reference period: beginning of February in the previous year to the end of the reference week.

Reasons for leaving job collected only from persons who stated they changed jobs (previously asked of all persons leaving a job).

For persons who changed jobs during the reference period, data collected about current job and first job held during the reference period (previously asked about current job and previous job held).

1983

Change to survey reference period: 52 weeks to the end of the week prior to interview.

1988

Preliminary publication discontinued.

1989

Sample size reduced to one-half of the Labour Force Survey sample.

1990

Persons aged 70 years and over excluded from the scope of the survey.
Sample size increased to full Labour Force Survey sample.

1992

Annual collection ceased - replaced by biennial collection.

1996

Sample restricted to no more than seven-eighths of the Labour Force Survey sample.

1998

Persons living in remote and sparsely settled areas are excluded from scope.
Historical estimates of the number and proportion of persons who were job mobile for the periods 1990 to 1996 were revised in the 1998 publication.

2006

The scope of the survey was expanded to include all people aged 15 years and over (previously ages 15 to 69 years).
New data items were introduced to provide information on people who had worked with their current employer/business for one year or more, and had some change in their work with their current employer/business in the last 12 months. Additional data items collected for these populations include: whether promoted and/or transferred; whether changed usual hours worked; whether changed occupation; whether entitled to paid holiday/sick leave entitlements; and employment type.
The following data items were excluded from the survey: number of changes in locality during the year; state or territory of usual residence 12 months prior to survey date; change of state or territory; and, reasons for changing locality.

2008

Occupation data classified according to the ANZSCO 2006 (cat. no. 1220.0) and industry data classified according to the ANZSIC 2006 (cat. no. 1292.0). This introduction of ANZSCO and ANZSIC mean that data relating to change in occupation and industry are not comparable with previous years.
Data items relating to change in occupation and industry were increased to include Minor occupation group and industry Subdivision in addition to existing Major occupation group and industry Division.

2009

Scope expanded to include people living in very remote areas of Australia except for people living in Aboriginal and Torres Strait Islander communities in very remote parts of Australia.

2012

Occupation data were classified according to ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1 (cat. no. 1220.0), replacing ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, 2006 (cat. no. 1220.0).

2013

Sample reduced from seven-eighths to six-eighths of the Labour Force Survey sample. This was due to one-eighth of the Labour Force Survey sample being offered the option of completing their Labour Force Survey questionnaire on-line instead of a through a face-to-face or telephone interview. This group was not offered the Labour Mobility survey.
Country of birth data were classified according to the Standard Australian Classification of Countries (SACC), Second Edition (cat. no. 1269.0), replacing the Standard Australian Classification of Countries (SACC), 1998 (cat. no. 1269.0).
All estimates from 2010 and 2012 were revised in the 2013 publication, with spreadsheets containing the revised estimates attached to the 2013 release. These spreadsheets should be used rather than the tables presented in the 2010 and 2012 publications. The revisions resulted from an update to the weighting process for the 2010 and 2012 surveys to be comparable with 2013 and previous surveys.
CURF not produced for the 2013 survey.

FURTHER INFORMATION

21.7.10 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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21.8. Locations of Work**Leave entitlements**

Paid sick leave and paid holiday leave.

Location of work

All locations of work, main location of work, number of locations of work and whether worked at home.

Home based work

Hours actually worked at home, hours usually worked at home, main reason for working at home, use of information technology at home, occupation in job worked at home, industry in job worked at home and status in employment in job worked at home.

21.8.5 Data collected in the survey are compiled according to concepts and definitions outlined in Chapter 4 (Employment measures and classifications) and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.8.6 The scope of this survey is restricted to persons aged 15 years and over. The standard scope restrictions for supplementary surveys outlined in the overview part of Chapter 21 (Labour Force Supplementary Surveys) also applies to this survey.

DATA COMPARABILITY OVER TIME

21.8.7 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. The changes to the survey scope and sample size mean that the standard errors for the surveys estimates differ over time. Changes affecting the Labour Force Survey may also affect this survey. Such changes are outlined in Chapter 20 (Labour Force Survey) and are not repeated here. The main changes to the Locations of Work survey are outlined below.

1989

Initial survey conducted in April - data published in Persons Employed at Home, Australia (cat. no. 6275.0).

Persons employed at home defined as persons who usually worked more hours at home than elsewhere, in their main or second job. Farmers, ASCO unit groups 1401 (farmers and farm managers) and 8201 (farm hands and assistants) were excluded.

1992

Survey conducted in March.

1995

Survey conducted in September.

Sample restricted to seven-eighths of the Labour Force Survey sample.

2000

Survey conducted in June.

Survey redeveloped, considerably expanded and renamed Locations of Work.

Persons living in remote and sparsely settled areas excluded from scope.

Persons employed at home redefined as people who, in the reference week, mainly or only work at home or in the home of another person (not employer's or client's home) or work at own home or in the home of another person as part of their formal working arrangements. Farmers who only or mainly worked at home were also included. Note: 'persons employed at home' as defined in the 1989, 1992 and 1995 surveys are not identifiable in the 2000 survey.

2005

Survey conducted in November.

Survey definition relating to 'employed persons who worked at home' redeveloped. People were defined as working 'only or mainly at home in main or second job' if they worked more hours at their own home than any other single location in their main job or in their second job.

Additional data items regarding working arrangements and the use of information technology in job at home were collected for this survey.

2008

Additional new data items collected in this survey.

From 2008, there have been minor changes to the data items 'All locations of work' and 'Main location of work'.

Changes to the way in which hours usually worked at home in main and/or second job were collected were made. From 2008, people did not have to work in their main job, however had to work in a job in the reference week to have their usual hours worked at home in their main job collected. In 2005, only people who actually worked at home in the reference week had their usual hours worked at home in their main job collected. For multiple jobholders in 2008, people had to work in their second job in the reference week to have their usual hours worked at home in second job collected. In 2005, only people who actually worked at home in their second job in the reference week had their usual hours worked at home in their second job collected.

FURTHER INFORMATION

21.8 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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21.9. Multiple Job Holders

CHAPTER 21.9. MULTIPLE JOB HOLDERS

INTRODUCTION

21.9.1 The Multiple Job Holders Survey collects information on the number and characteristics of employed persons who have more than one job. Information on multiple job holders has been collected on an irregular basis since 1965.

21.9.2 This section describes only those aspects of the methodology that are unique to this survey, and hence should be used in conjunction with the overview part of this chapter, which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.9.3 The Multiple Jobholders Survey was first conducted in 1965, then every two years from August 1973 until August 1987. It was then conducted in July 1991, August 1994, August 1997 and July 1998. Data from the survey were last published for August 1997, however estimates from the July 1998 survey are available on request. Estimates from previous surveys have been published in Multiple Jobholding, Australia (cat. no. 6216.0).

21.9.4 Data from the survey relate to persons aged 15 and over. The main population of interest is employed persons (excluding contributing family workers and persons working solely for payment in kind) with more than one job. Estimates are produced on an original basis only (i.e. not seasonally adjusted) and include:

Socio-demographic information

Sex, age, marital status, relationship in household, family, geographic region, birthplace and year of arrival in Australia.

Multiple job holders

Labour force characteristics of main and second job including status in employment, full-time/part-time status, hours worked, occupation, industry, weekly earnings, and whether worked in second job in the survey reference week.

21.9.5 Data collected in the survey are compiled according to concepts and definitions outlined in Chapter 4 (Employment measures and classifications) and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.9.6 The scope of this survey is restricted to employed persons aged 15 years and over. The standard scope restrictions for supplementary surveys outlined in Chapter 21 also apply to this survey.

DATA COMPARABILITY OVER TIME

21.9.7 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Over the time the survey has been conducted there have been some changes to the scope and sample size. These changes mean that the standard errors for the survey differ over time. The effect on estimates of the change in scope is considered to have been small. Changes affecting the Labour Force Survey may also affect this survey. Such changes are outlined in Chapter 20 and are not repeated here.

1965

Initial survey conducted (November) - data published in Multiple Job Holders (Statistical Bulletin 465).

Survey scope - employed persons aged 14 and over.

Multiple job holders were defined as employed persons holding any kind of second job (may have been working or temporarily absent from that job in the survey reference period). Note: second job excludes occupations such as professional sportsmen, part-time musicians, paid coaches and the like.

Main job was defined as job in which the respondent worked most hours in the reference week.

1966

Survey conducted (August) - data published in Multiple Job Holders (Statistical Bulletin 564).

Change to survey scope - employed persons aged 15 and over.

Multiple job holders were defined as employed persons holding any kind of second job (may have been working or temporarily absent from that job in the survey reference period) and employed as a wage or salary earner or unpaid family helper in at least one of those jobs. Note: second job excludes occupations such as professional sportsmen, part-time musicians, paid coaches and the like.

1967

Survey conducted (August) - data published in Multiple Job Holders (Ref. no. 6.10).

1971

Survey conducted (May).

Change to survey scope - employed persons aged 15 and over.

Multiple job holders were defined as employed persons holding any kind of second job (may have been working or temporarily absent from that job in the survey reference period) and employed as a wage or salary earner in at least one of those jobs. Note: second job excludes unpaid family helpers.

1973

Biennial collection commenced (August).

Preliminary publication introduced - Multiple Job Holders, Preliminary (Ref. no. 6.39).

1977

Catalogue numbers replaced reference numbers - cat. no. 6215.0 (preliminary data) and cat. no. 6216.0 (final data).

Preliminary publication discontinued.

1979

Change to definition of main job - job in which the respondent usually works most hours in the reference week.

1991

Survey conducted in July (this year only).

1994

Sample restricted to seven-eighths of the Labour Force Survey sample.

Standard Data Service replaced publication format (cat. no. changed to 6216.0.40.001).

1997

Survey conducted in August.

Publication format replaced Standard Data Service (cat. no. changed to 6216.0).

Persons living in remote and sparsely settled areas excluded from scope.

1998

Survey conducted in July.

FURTHER INFORMATION

21.9.8 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email labour.statistics@abs.gov.au.

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21.10. Persons Not In the Labour Force

CHAPTER 21.10. PERSONS NOT IN THE LABOUR FORCE

INTRODUCTION

21.10.1 The Persons Not in the Labour Force (PNILF) survey collects information about persons who are neither employed nor unemployed. Data from this survey are used to measure potential labour supply not reflected in employment and unemployment statistics, and in particular to measure the number and characteristics of discouraged job seekers and others marginally attached to the labour force. The policy context for the data includes labour market programs for the jobless, income support programs, retirement policies, and child care policies. The survey was first conducted in May 1975 and then in May 1977. From 1979 to 1987 the survey was collected biannually. The survey has been conducted annually since 1988.

21.10.2 This section describes only those aspects of the methodology that are unique to this survey, and hence should be used in conjunction with the overview part of this chapter, which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.10.3 Data from the survey are published in Persons Not in the Labour Force, Australia (cat. no. 6220.0) and standard data service Persons Not in the Labour Force, Australia (cat. no. 6220.0.40.001) for 1994 and 1995 (available in hard copy only). More detailed estimates are available on request.

21.10.4 Data from the survey relate to persons aged 15 years and over. The main populations of interest are:

- persons not in the labour force: persons who are neither employed nor unemployed;
- persons marginally attached to the labour force: people who were not in the labour force in the reference week, want to work and were either actively looking for work but were not available to start in the survey reference week, or were not actively looking for work but were available to start work within four weeks; and
- discouraged job seekers: people who want work and were available to work within four weeks, but were not actively looking for work because they believed they would not find a job.

21.10.5 Estimates are produced on an original basis only (i.e. not seasonally adjusted or trend) and include:

Socio-demographic information

Sex; age; marital status; relationship in household; state or territory of usual residence; country of birth; year of arrival in Australia; and full-time study status.

Persons not in the labour force

Whether want to work and full-time/part-time preference; whether looked for work in last 12 months; main activity when not in the labour force; intention to enter the labour force; time since last job; reason for ceasing last job; occupation of last job; status in employment of last job; and full-time or part-time status in last job.

Persons marginally attached to the labour force

Whether actively looking for work and whether available for work; all and main reason(s) not actively looking for work; all and main reason not available to start work within four weeks; and age of youngest child and number of children.

21.10.6 Data collected in the survey are compiled according to concepts and definitions outlined in Chapter 4 (Employment measures and classifications), Chapter 7 (Not in the labour force) and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.10.7 The scope of this survey is restricted to persons aged 15 years and over. The standard scope restrictions for supplementary surveys outlined in Chapter 21 also apply to this survey.

DATA COMPARABILITY OVER TIME

21.10.8 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Changes affecting the Labour Force Survey may also affect this survey. Such changes are outlined in Chapter 20 and are not repeated here.

1975

Initial survey conducted (November) - preliminary data published in *Persons Not In the Labour Force, Preliminary* (ref. no. 6.54) and final data in *Persons Not In the Labour Force* (ref. no. 6.59). Survey scope - persons aged 15-64.

1977

Survey conducted (May). Catalogue numbers replaced reference numbers - cat. no. 6219.0 (preliminary data) and cat. no. 6220.0 (final data).

1979

Biannual collection commenced (March and September), some definitional changes.

1980

Change to definition of persons wanting a job - broadened to include persons available to start work within 4 weeks from the end of the reference week but not actively looking for work. Preliminary publication discontinued.

1983

Concept of marginal attachment to the labour force introduced. Improvements made to measure of discouraged job seekers. Survey scope changed - persons aged 15 years and over.

1988

Survey scope changed - persons aged 15-69. Annual collection commenced (September).

1994

Standard Data Service replaced publication format (cat. no. changed to 6220.0.40.001). Sample reduced to seven-eighths of Labour Force Survey sample.

1996

Publication format replaced Standard Data Service (cat. no. changed to 6220.0).

1997

Persons living in remote and sparsely settled parts of Australia excluded from scope of survey.

2001

The introduction of the redesigned Labour Force Survey (in April 2001) allowed the identification of a new population group 'People permanently not intending to work'. These people were not asked questions about wanting to work and looking for work. As such these people were classified as 'Did not want to work' (without marginal attachment).

2005

The scope of the survey was expanded to include all persons aged 15 years and over.

2006

Estimates of the number of people who were not in the labour force because they were caring for children include people whose youngest child was aged 12 years and under. Previously questions relating to the care of children were only asked of people with children aged 11 years and under.

2007

Those 'permanently not intending to work' were further classified as either 'wanting to work' and 'did not want to work'. As a result of this change there has been a break in time series.

For the data items 'All reasons for not actively looking for work', 'Main reason for not actively looking for work', and 'Main reason not available to start work within four weeks' the response category 'own ill health, physical disability or pregnancy' was changed to three separate categories; 'own short-term illness or injury', 'own long-term health condition or disability' and 'pregnancy'.

For the data items 'Reason for ceasing last job', and 'Main activity when not in the labour force' the response categories 'own ill-health or injury' and 'own disability or handicap' were changed to 'own short-term illness or injury' and 'own long-term health condition or disability' respectively to ensure consistency within the survey resulting in a break in series.

A new data item was collected: 'All reasons not available to start work within four weeks'.

2008

For the data item 'Main activity when not in the labour force' the category 'Home duties or caring for children' was split into 'Home duties' and 'Caring for children'.

2009

For the response categories 'All reasons for not actively looking for work' and 'Main reason for not actively looking for work' a new data item 'Believes ill-health or disability discourages employers' was collected.

For the population group 'Discouraged job seekers' the response categories 'Believes no jobs in suitable hours' and 'Believes ill-health or disability discourages employers' were included resulting in a break in series.

A new data item: 'Preferred number of hours' was collected. The data item 'Full-time or part-time preference' was determined using this information based on the number of hours a respondent preferred to work each week. Both data items were collected for people who intend to enter the labour force in the next 12 months, resulting in a break in series.

2013

Just over half of the respondents were given the option to complete the survey online instead of interviewer administered.

Approximately 11% of respondents provided their data online. Interviewer collection (both face-to-face and via telephone) continued to be available to respondents who were unable to use the online option, due to operational, technological or personal reasons.

FURTHER INFORMATION

21.10.9 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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21.11. Retirement and Retirement Intentions**CHAPTER 21.11. RETIREMENT AND RETIREMENT INTENTIONS**

INTRODUCTION

21.11.1 The Retirement and Retirement Intentions Survey was conducted as a supplement to the Labour Force Survey on an irregular basis between 1980 and 1997. It collected information about the retirement and retirement intentions of persons aged 45 years and over. Although the survey was last conducted in this format in 1997, a retirement and retirement intentions topic is currently included in the Multi Purpose Household Survey (MPHS) every two years (beginning with the 2004–05 reference period). See Chapter 22 for more detail on this collection.

21.11.2 Data from the survey were used to examine changes in retirement trends over time and the income arrangements retirees and potential retirees have made to provide for their retirement. Data were used primarily in the development and review of income support and superannuation policies.

21.11.3 This section describes only those aspects of the methodology that were unique to this survey and should therefore be read in conjunction with the overview part of this (Chapter 21), which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.11.4 Data from the survey were published in Retirement and Retirement Intentions, Australia (cat. no. 6238.0). More detailed estimates are available on request.

21.11.5 Data from the survey related to people aged 45 years and over. The main populations of interest were people who had retired from full-time work, people who had retired from the labour force, and people who were still working and intended to retire. Estimates were made available on an original basis only (i.e. not seasonally adjusted) and include:

Socio-demographic information:

- sex; age;
- marital status;
- household/family relationship;
- state or territory of usual residence; and
- birthplace and year of arrival in Australia.

All persons:

- labour force status;
- details of current job including full-time or part-time status (for those working);
- status in employment (for those working); and
- occupation and industry (for those working).

Persons who had retired from full-time work:

- age at retirement from full-time work;
- reason for ceasing last full-time job;
- whether reached compulsory retirement age in last full-time job;
- details of last full-time job including occupation, industry, and status in employment; and
- time since retirement.

Persons who had retired from full-time work aged 45 and over:

- details of retirement scheme membership;
- retirement scheme membership at retirement from full-time job;
- time in main retirement scheme at retirement from full-time job;
- previous retirement scheme membership, and time in previous retirement scheme;
- details of payments from retirement scheme, including type of payment from retirement scheme,
- disbursement of lump sum payment from retirement scheme (and amount if retired less than four years from time of survey);
- details of income, including sources of income at retirement from full-time work,
- current sources of income, and
- whether changed main source of income since retirement.

Persons who had retired from the labour force:

- details of retirement from full-time work (as above); and
- time since retirement from the labour force.

Persons who intended to retire:

- details of retirement scheme membership (current and previous);
- expected time until retirement (from full-time work, from the labour force);
- expected sources of income at retirement from full-time work;
- whether intends to work part-time after retirement from full-time work; and
- intended age at retirement (from full-time work, from the labour force).

21.11.6 All data collected were compiled according to concepts and definitions outlined in Chapter 2 (Currently economically active population), Chapter 4 (Employment measures and classifications), Chapter 10 (Other measures of the economically active population) and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.11.7 The scope of this survey was restricted to persons aged 45 years and over. The standard scope restrictions for supplementary surveys outlined in the overview part of Chapter 21 also apply to this survey.

RELATED SURVEYS

21.11.8 A Retirement and Retirement Intentions topic is currently included in the Multi-Purpose Household Survey (MPHS) every two years, and was first conducted in the 2004–05 reference period. Data from the supplementary survey and the MPHS topic are not directly

comparable as there are differences in the concepts measured, scope, collection methodology and sample design. See Chapter 22.2 for more detail information on this survey.

21.11.9 Data on retirement and retirement intentions are also collected as a component of the 2007 Survey of Employment Arrangements, Retirement and Superannuation (SEARS), which was earlier conducted in 2000 as the Survey of Employment Arrangements and Superannuation (SEAS) (see Chapter 23). While SEARS has a similar focus to SEAS, and collects a similar range of data, changes in the survey scope and methodology, and in the collection and presentation of information, mean that estimates from the surveys may not be strictly comparable. The next SEARS will be conducted in 2013, and will be combined with the Time Use Survey into a new survey called the Work, Life and Family Survey.

DATA COMPARABILITY OVER TIME

21.11.10 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods were made as infrequently as possible. Over the time the survey was conducted there were some changes to the scope and sample size. These changes mean that the standard errors for the survey differ over time. The effect on estimates of the change in scope is considered to have been small. Changes affecting the Labour Force Survey may also have affected this survey. Such changes are outlined in Chapter 20 and are not repeated here.

Key survey specific changes are outlined below.

1980

Initial survey conducted (May) - preliminary data published in **Persons Aged 50-69 Years Ceasing Full-Time Work, Australia, Preliminary** (cat. no. 6237.0) and final data published in **Persons Aged 50-69 Years Ceasing Full-Time Work, Australia** (cat. no. 6238.0).

Survey scope - persons aged 50-69 years.

Ceased full-time work defined as - previously worked on a full-time basis and have permanently ceased full-time labour force activity (working or looking for work).

1983

Survey conducted (September) - data published in **Persons Retired From Full-Time Work, Australia** (cat. no. 6238.0)

Retired defined as - previously worked on a full-time basis and have permanently ceased full-time labour force activity (working or looking for work).

1984

Survey conducted (September) - preliminary data published in **Persons Who Intended To Retire From Full-Time Work, Australia, Preliminary** (cat. no. 6257.0) and final data published in **Persons Who Intended To Retire From Full-Time Work, Australia** (cat. no. 6258.0).

Survey scope - persons aged 45 years and over.

Information only collected about intentions to retire from full-time work.

1986

Survey conducted (November) - preliminary data published in **Retirement and Retirement Intentions, Australia, Preliminary** (cat. no. 6237.0) and final data published in **Retirement and Retirement Intentions, Australia** (cat. no. 6238.0).

Information collected about: intentions to retire from full-time work; and retirement from full-time work.

Information was not collected from persons permanently unable to work.

Preliminary publication discontinued.

1989

Survey conducted (November).

1992

Survey conducted (October).

1994

Survey conducted (November).

Sample restricted to seven-eighths of the Labour Force Survey sample.

Information collected from persons permanently unable to work.

Standard Data Service replaced publication format (cat. no. changed to 6238.0.40.001).

1997

Sample restricted to six-eighths of the Labour Force Survey sample.

Data on partial and full retirement collected.

Publication format replaced Standard Data Service (Retirement and Retirement Intentions, Australia cat. no. changed to 6238.0).

Persons living in remote and sparsely settled areas excluded from scope.

Survey vehicle changed from a supplementary survey to a topic on the MPHS. For more information, see Chapter 22 (MPHS) and Chapter 22.2 (Retirement and Retirement Intentions).

FURTHER INFORMATION

21.11.11 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email labour.statistics@abs.gov.au.

21.12. Retrenchment and Redundancy

CHAPTER 21.12. RETRENCHMENT AND REDUNDANCY

INTRODUCTION

21.12.1 This survey was first conducted in July 1997 and again in July 2001. It collected information on the labour force status and other characteristics of people who had been retrenched or made redundant in the three year period prior to 30 June in the survey year. The ABS does not plan to conduct this survey again. Information on this topic is also available from the two-yearly Labour Mobility Survey (see Chapter 21.7).

21.12.2 Results from the Retrenchment and Redundancy survey provide information on the employment consequences of structural change in the economy, and are used for policy development and planning of services to workers who have been retrenched or made redundant.

21.12.3 This section describes only those aspects of the methodology that are unique to this survey, and hence should be used in conjunction with the overview part of this chapter, which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.12.4 Data from the survey were published in Retrenchment and Redundancy, Australia (cat. no. 6266.0). More detailed data are available on request.

21.12.5 Data from the survey relate to people aged 18 to 64. The main population of interest was people who had been retrenched or made redundant in the three years to 30 June in the survey year. Estimates are available on an original basis only (i.e. not seasonally adjusted) and include:

Socio-demographic information

Sex, age, marital status, relationship in household, family, geographic region, educational attainment, birthplace and year of arrival in Australia.

People who had held a job in the three years prior to 30 June

Current labour force status, number of times retrenched in three years prior to 30 June.

People who had been retrenched in the three years prior to 30 June

Details of job most recently retrenched from including occupation, industry, full-time or part-time status, permanent or casual status, sector, and duration of employment; details of the retrenchment including reasons for retrenchment and whether given notice; and details of advice sought after retrenchment including agencies visited, assistance provided; whether attending an educational institution; and current labour force status.

People who had been retrenched in the three years prior to 30 June and currently employed

Details of main job including occupation, industry, full-time or part-time status, sector, permanent or casual status; and differences between current job and job retrenched from including whether changed occupation, whether changed industry, and whether changed full-time or part-time status.

People who had been retrenched in the three years prior to 30 June and currently unemployed

Type of work sought (full-time or part-time), duration of current period of unemployment, active steps to find work, whether would move if offered a suitable job, difficulties experienced finding work, offers of employment, number of spells of looking for work, and total time spent looking for work in previous 12 months.

21.12.6 Data collected in the survey are compiled according to concepts and definitions outlined in Chapter 2 (Currently economically active population), Chapter 3 (Employment), Chapter 4 (Employment measures and classifications), Chapter 6 (Unemployment) and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.12.7 The scope of this survey was restricted to people aged 18 to 64 years. The standard scope restrictions for supplementary surveys outlined in the overview part of Chapter 21 also apply to this survey.

COMPARISON WITH LABOUR MOBILITY SURVEY

21.12.8 There are two Labour Force Supplementary surveys which collect information about the number of people retrenched from their job: Retrenchment and Redundancy and Labour Mobility. Although both surveys present information on retrenched people, there are important differences in methodology which limit comparability of data. The differences include:

Scope

The Retrenchment and Redundancy survey collected information from people aged 18-64 years. The Labour Mobility survey collects information from people aged 15-69 years.

Reference period

The Retrenchment and Redundancy survey provided estimates of the number of people retrenched in the three years prior to the survey. The Labour Mobility survey provides estimates the number of people retrenched in the year prior to the survey.

Type of information collected

The Retrenchment and Redundancy survey collected data on the number of people retrenched, characteristics of the retrenchment such as why they were retrenched and how much notice they were given, information about the job they were retrenched from and their current

status in the labour force. The survey measured the number of people retrenched during the reference period rather than the total number of retrenchments (for people retrenched more than once during the reference period, details of the most recent retrenchment were collected).

The Labour Mobility Survey collects information about employment changes of people during the reference period. Data is collected on the number of retrenchments in the process of asking why a job ceased.

21.12.9 An issue which affects the data quality is how well respondents are able to remember details of the period they are being asked about. The ABS has not conducted any studies to try to assess the extent of any recall bias in the Retrenchment and Redundancy Survey. However recall bias is a well-known phenomenon in surveys of this nature, and the relative bias tends to increase as the length of the recall period increases. As the recall period in the Retrenchment and Redundancy Survey is three years (compared with one year for the Labour Mobility Survey), it is possible that there is more recall bias in the Retrenchment and Redundancy than in the Labour Mobility Survey. The nature of recall bias includes the failure to recall events (particularly the less significant ones), and the tendency to recall events as being more recent than they actually were.

21.12.10 The Labour Mobility survey is a better source of time series data, since it provides a consistent time series going back over 20 years, whereas the Retrenchment and Redundancy Survey was only conducted twice (in 1997 and 2001).

DATA COMPARABILITY OVER TIME

21.12.11 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Over the time the survey was conducted there were some changes to the scope and sample size. These changes mean that the standard errors for the survey differ over time. The effect on estimates of the changes in scope is considered to have been small. Changes affecting the Labour Force Survey may also have affected this survey. Such changes are outlined in Chapter 20 and are not repeated here.

FURTHER INFORMATION

21.12.12 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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21.13. Successful and Unsuccessful Job Search Experience

CHAPTER 21.13. SUCCESSFUL AND UNSUCCESSFUL JOB SEARCH EXPERIENCE

INTRODUCTION

21.13.1 This survey collected information about the job search experience of job seekers. It provided information on the ways people look for jobs, and particularly on the methods which prove ultimately to be successful. First conducted in 1982, the survey was conducted biennially in July until 2000. From July 2002, the survey was combined with the annual survey of Job Search Experience of Unemployed Persons (see Chapter 21.4), forming the annual survey of Job Search Experience (see Chapter 21.17). Data from the survey were used in formulating policies in areas such as labour market assistance, and control and review mechanisms for unemployment benefit payments.

21.13.2 This section describes only those aspects of the methodology that were unique to this survey, and hence should be used in conjunction with the overview part of this chapter, which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.13.3 Data from the survey were published in Successful and Unsuccessful Job Search Experience, Australia (cat. no. 6245.0). More detailed data are available on request.

21.13.4 The main population of interest in the survey was persons who had started or looked for a job during the 12 months prior to the survey date. Only jobs paid by wages or salary were included. Persons who started a new job with the same employer were excluded. Estimates included:

Socio-demographic information

Sex, age, marital status, relationship in household, family, geographic region, educational attainment, birthplace and year of arrival in Australia.

Data on successful job seekers

Selected labour force characteristics, number of jobs started in the previous 12 months, method of job attainment, whether out of work before commencing a job, duration of job search, preferred occupation, and role of Centrelink or CES in job attainment.

Data on unsuccessful job seekers

Steps taken to find work, type of work looking for (occupation, full-time or part-time work), duration looking for work, and number of spells looking for work.

21.13.5 All data collected were compiled according to concepts and definitions outlined in: Chapter 2 (Currently economically active population), Chapter 3 (Employment), Chapter 4 (Employment characteristics), Chapter 6 (Unemployment) and Chapter 16 (Other classification used in labour statistics).

SCOPE

21.13.6 The scope of this survey was restricted to persons aged 15 and over. The standard scope restrictions for supplementary surveys outlined in the overview part of Chapter 21 also applied to this survey.

DATA COMPARABILITY OVER TIME

21.13.7 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods were made as infrequently as possible. Over the time the survey was conducted there were some changes to the scope and sample size. These changes mean that the standard errors for the survey differed over time. The effect on estimates of the change in scope is considered to have been small. Changes affecting the Labour Force Survey may also have affected this survey. Such changes are outlined in Chapter 20 and are not repeated here.

1982

Initial survey conducted (July) - preliminary data published in Methods of Obtaining Jobs, Australia, Preliminary (cat. no. 6244.0) and final data in Methods of Obtaining Jobs, Australia (cat. no. 6245.0).

Survey scope - persons aged 15 and over except those still attending school.

Data were from persons who started a wage or salary job over the six months to July 1982.

1986

Survey conducted (June) - preliminary data published in Successful and Unsuccessful Job Search Experience, Australia, Preliminary (cat. no. 6244.0) and final data in Successful and Unsuccessful Job Search Experience, Australia (cat. no. 6245.0).

Data were collected from persons who looked for, or started, a wage or salary job over the previous 12 months.

Preliminary publication discontinued.

1990

Biennial collection commenced (July).

Survey scope - all persons aged 15 and over.

1994

Sample restricted to seven-eighths of the Labour Force Survey sample.

1998

Persons living in remote and sparsely settled areas excluded from scope.

Additional questions on active steps to find work, and on role of CES/Centrelink in job attainment, revised to reflect changes in the employment services market.

2000

Final survey. Replaced by Job Search Experience Survey from July 2002.

FURTHER INFORMATION

21.13.8 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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21.14. Underemployed Workers

CHAPTER 21.14. UNDEREMPLOYED WORKERS

INTRODUCTION

21.14.1 The ABS has been conducting the Underemployed Workers Survey irregularly since 1985, and annually since 1994. The survey provides detailed information about workers who are in time related underemployment, i.e. part-time workers who indicate that they would prefer to work more hours, and full-time workers who worked part-time hours in the reference week for economic reasons.

21.14.2 Underemployed workers are an important component of underutilised labour in the economy, along with the unemployed and those with marginal attachment to the labour force. While aggregate level data on underemployment are available quarterly from the Labour Force Survey, this supplementary survey provides greater detail on the characteristics of underemployed workers, steps taken to find additional hours of work and their preferred number of hours.

21.14.3 This section describes only those aspects of the methodology that are unique to this survey, and should be used in conjunction with Chapter 21 which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.14.4 Data from the survey are published in Underemployed Workers, Australia (cat. no. 6265.0). More detailed data are available on request.

21.14.5 Data from the survey relate to all employed people aged 15 years and over. The main populations of interest are:

- part-time workers who would prefer more hours; and
- underemployed workers, who comprise:
 - part-time workers who would prefer to work more hours and were available to start work with more hours, either in the reference week or in the four weeks following the survey; and
 - full-time workers who worked part-time hours in the reference week for economic reasons (such as being stood down or

insufficient work being available).

21.14.6 Estimates are produced on an original basis only (i.e. not seasonally adjusted) and include:

Socio-demographic information

Sex; age; marital status; relationship in household; state or territory of usual residence; area of usual residence; level of highest educational attainment; level of highest non-school qualification; whether qualification was obtained overseas; country of birth; and period of arrival in Australia.

Employment characteristics

Whether fully employed; full-time/part-time status; status in employment; and employment type.

Underemployed workers

Underemployment status; number of hours worked in the reference week; duration of current period of insufficient work; whether would move interstate if offered a suitable job; whether would move intrastate if offered a suitable job; whether would prefer to change occupation to work more hours; and whether would prefer to change employer to work more hours.

Part-time workers who would prefer more hours

Whether looking and/or available for work with more hours; number of hours worked in the reference week; duration of current period of insufficient work; whether would move interstate if offered a suitable job; whether would move intrastate if offered a suitable job; whether would prefer to change occupation to work more hours; whether would prefer to change employer to work more hours; steps taken to find additional work with more hours in the last four weeks; whether registered with Centrelink; preferred number of extra hours; main difficulty in finding-work with more hours; usual number of hours worked; and preferred total number of hours.

21.14.7 Data collected in the survey are compiled according to concepts and definitions outlined in Chapter 3 (Employment), Chapter 4 (Employment measures and classifications), Chapter 5 (Underemployment) and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.14.8 The scope of this survey is restricted to persons aged 15 years and over. The standard scope restrictions for supplementary surveys outlined in Chapter 21 also apply to this survey.

DATA COMPARABILITY OVER TIME

21.14.9 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Over the time the survey has been conducted there have been some changes to the scope and sample size. These changes mean that the standard errors for the survey differ over time. The effect on estimates of the change in scope is considered to have been small. Changes affecting the Labour Force Survey may also affect this survey. Such changes are outlined in Chapter 20 and are not repeated here.

21.14.10 Key survey specific changes are outlined below.

1985

Initial survey conducted (May) - data published in Underemployed Workers, Australia (cat. no. 6265.0).

1988

Survey conducted (May).

1991

Survey conducted (May).

1994

Annual collection commenced (September). Sample restricted to no more than seven-eighths of the Labour Force Survey sample. An additional question was added to the survey to determine availability during the reference week of part-time workers who prefer more hours of work. This question was added so that estimates of underemployment could be aligned with the International Labour Organisation (ILO) recommendations on underemployment. Occupation and industry of employment data items no longer available.

Standard Data Service replaced publication format (cat. no. changed to 6265.0.40.001).

1996

The following data items were added to the survey: duration of current period of insufficient work; whether would move interstate if offered a suitable job; whether would move intrastate if offered a suitable job; whether would prefer to change occupation; whether would prefer to change employer to work more hours; and main difficulty in finding work.

Publication format replaced Standard Data Service (cat. no. changed to 6265.0).

1997

Persons living in remote and sparsely settled areas excluded from scope.

2001

As part of the 2001 Labour Force Survey questionnaire redesign, people who were on short-term unpaid leave initiated by the employer are now classified as employed. This approach is consistent with ILO recommendations on formal job attachment. Overall, these people contributed only marginally to the change in number of part-time workers who would prefer more hours.

2004

For the data items 'all difficulties in finding work with more hours' and 'main difficulty in finding work with more hours' the response category 'considered too young or too old by employers' was split into two separate categories: 'considered too young by employers' and 'considered too old by employers'.

2008

Changes were made to the survey question relating to preference for more hours: part-time workers were asked '*Would you prefer to work more hours than you usually work?*' instead of '*Would you prefer a job in which you worked more hours a week?*', to be consistent with the Labour Force Survey. The revised question resulted in an additional 131,500 people who were classified as underemployed in 2008, compared with 2007.

2013

Respondents were given the option to complete the survey form online instead of face to face. Interviewer collection (both face-to-face and via telephone) continued to be available to respondents who were unable to use the online option, due to operational, technological or personal reasons.

FURTHER INFORMATION

21.14.11 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>

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21.15. Work Related Injuries

CHAPTER 21.15. WORK-RELATED INJURIES

INTRODUCTION

21.15.1 This survey was conducted in September 2000 and collected information about persons who had experienced a work-related injury or illness in the previous 12 months. Data collected in the survey assisted in monitoring programs and formulating policies in relation to workers' compensation and occupational health and safety.

21.15.2 The survey was replaced in 2005–06 by the four-yearly work-related injuries topic in the Multi-Purpose Household Survey (MPHS) (see Chapter 22.3).

21.15.3 This section describes only those aspects of the methodology that were unique to this survey and should therefore be read in conjunction with Chapter 21, which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.15.4 Data from the survey were published in Work-Related Injuries, Australia, Sep 2000 (cat. no. 6324.0). More detailed estimates are available on request.

21.15.5 The main population of interest in the survey was persons who worked at some time during the previous 12 months and who suffered a work-related injury or illness in that period. Estimates were produced on an original basis only (i.e. not seasonally adjusted) and include:

Socio-demographic information

Sex; age; marital status; relationship in household; state or territory, area and region of usual residence; birthplace and year of arrival in Australia.

Employment characteristics (current job and job in which injury was sustained, if different)

Occupation; industry; status for both employment; full-time or part-time status; leave entitlement status.

Work-related injuries information

Number of work-related injuries or illnesses; number of days/shifts absent from work; sources of financial assistance for medical expenses; whether applied for workers' compensation; reason for not applying for workers' compensation.

21.15.6 Data collected in the survey were compiled according to concepts and definitions outlined in Chapter 4 (Employment measures and classifications), Chapter 15 (Occupational injuries and diseases) and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.15.7 The scope of this survey was restricted to persons aged 15 years and over. The standard scope restrictions for supplementary surveys outlined in Chapter 21 also applied to this survey.

RELATED SURVEYS

21.15.8 Data on work-related injuries are currently collected in the four-yearly work-related injuries topic in the MPHS (see Chapter 22.3). Data from the supplementary survey and the MPHS topic are not directly comparable as there are differences in the concepts measured, scope, collection methodology; and sample design (including sample size). See Chapter 21 and Chapter 22 for more information on the survey methodologies for the MPHS and the supplementary surveys.

FURTHER INFORMATION

21.15.9 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

21.16. Working Time Arrangements

CHAPTER 21.16. WORKING TIME ARRANGEMENTS

INTRODUCTION

21.16.1 This survey collects information about the working time arrangements of employed people. The survey was first conducted in August 1993 and is now conducted three yearly, with the most recent survey conducted in November 2012.

21.16.2 Data from this survey are used to examine the differing working arrangements, including job stability, job flexibility and scheduling of work.

21.16.3 This section describes only those aspects of the methodology that are unique to this survey, and hence should be used in conjunction with the overview part of this chapter, which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.16.4 Data from the survey are published in Working Time Arrangements, Australia (cat. no. 6342.0). Prior to 2006, survey data were published in Working Arrangements (same catalogue number). More detailed data are available on request.

21.16.5 The main populations of interest are employees in main job and employed persons. Estimates are produced on an original basis only (i.e. not seasonally adjusted) and include:

Socio-demographic information

Sex, age, marital status, relationship in household, state or territory of usual residence, country of birth and period of arrival and number of children in family aged under 15 years.

Employment characteristics

Occupation; industry; hours worked; full-time or part-time status.

Leave entitlements

Paid sick leave and paid holiday leave.

Job stability

Whether guaranteed a minimum number of hours; Whether earnings/income varied; Whether usually worked the same number of hours each week.

Job flexibility

Whether had an agreement to work flexible hours; Whether had say in start/finish times; Whether had say in days worked; Whether able to chose to work extra hours on order to take time off.

Job scheduling

Whether usually worked shift work; Days of the week usually worked; Whether usually worked extra hours or overtime and whether compensated for extra hours or overtime worked.

21.16.6 Data collected in this survey are compiled according to concepts and definitions outlined in Chapter 4 (Employment measures and classifications), Chapter 12 (Employee remuneration) and Chapter 16 (Other classifications used in labour statistics).

SCOPE

21.16.7 The scope of this survey is restricted to persons aged 15 years and over, who were employees in their main job. The scope excludes contributing family workers in their main job and persons aged 15-19 years who were still at school. The standard scope restrictions for supplementary surveys outlined in the overview part of Chapter 21 also apply to this survey.

DATA COMPARABILITY OVER TIME

21.16.8 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Changes to the survey scope and sample size are listed below. These changes mean that the standard errors for the survey differ over time. The effect on estimates of the change in scope is considered to have been small. Changes affecting the Labour Force Survey may also affect this survey. Such changes are outlined in Chapter 20 and are not repeated here. The main changes to the Working Time Arrangements survey are outlined below.

1976

Work Patterns of Employees, Australia (cat. no. 6328.0) and Evening and Night Work, Australia (cat. no. 6329.0) conducted.

1981

Working Hours Arrangements, Australia (cat. no. 6338.0), and Working Hours Arrangements, Australia, Supplementary Tables (cat. no. 6339.0) conducted. These surveys collected information about employees current working patterns

1982 to 1986

Conducted in March to May 1982 and then again in September to November 1986. This survey collected information about employees current working arrangements and preferences for changes to these arrangements

1993

First survey of Working Arrangements, Australia conducted (August).

1995

Changes to Supplementary Surveys restricted the sample to no more than seven-eighths of the Labour Force Survey sample. For more information see Chapter 21 (Labour Force Supplementary Surveys). Scope changed to exclude persons attending school. Relationship in Household classification introduced. Breaks in comparability with the classification Family Status, include: Lone parents; Dependent students; Other family persons; Other family head; Other related full-time students; and Other relative of married couple or family head. For more information see Chapter 16 (Other Classifications Used in Labour Statistics - Families and Households).

1997

A scope change resulted in students at boarding schools, patients in hospital, residents of homes (e.g. retirement homes, homes for the handicapped) and inmates of prisons being excluded. In addition, persons living in remote and sparsely settled areas were excluded. Cat. no. changed to 6342.0. From August 1997, occupation data was classified according to the Australian Standard Classification of Occupations (ASCO), Second Edition (cat. no. 1220.0). Data items excluded were: whether had a rostered day off in the last four weeks; Hours worked in most recent shift; and Number of days worked in a row in most recent period of shift work.

2000

Additional data items collected included; number of days usually worked per week/month, whether normally works the same number of hours each week in main job (excluding overtime), whether would prefer more, less or the same number of hours as usually worked, whether works in a job-share arrangement, and main reason for working overtime in main job. In addition, there was a change of terminology: 'Permanent' was replaced by 'With leave entitlements' and 'Casual' was replaced by 'Without leave entitlements'. Data items no longer collected included size of location (employees), hours worked in main job, weekly earnings in main job, type of standard benefit received and superannuation and long service leave.

2003

Additional data items were collected relating to hours, provision of paid maternity/paternity leave, hours worked in most recent shift, time worked with current employer or business, duration and multiple jobholder status in reference week. A number of changes were made to data items. The type of standard benefit received - holiday leave/ sick leave' was replaced with 'Provision of paid holiday leave' and 'Provision of paid sick leave'. 'Whether used formal child care in the last four weeks', time period reduced to 'last two weeks'. 'Main reason did not use formal child care', time period qualified by 'last two weeks'. 'Type of child care used in the last four weeks', time period reduced to 'last two weeks'. 'Whether had an absence from main job in the last two weeks' replaced with 'Whether had an absence of at least three hours from main job in the last two weeks'. 'Type of leave taken for most recent absence' - output categories no longer collected: Flex time/time off in lieu; Workers' compensation; Rostered Day Off (RDO); and Self-Employed (no leave).

2006

The Working Arrangements Survey was redeveloped and renamed the Working Time Arrangements Survey. Information collected in the Working Arrangements Survey about trade union membership, rostered days off, reasons for usually working less than 35 hours a week, job-sharing, absences from work and formal and informal child care no longer collected. Industry data classified according to the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006, Australian and New Zealand Standard Industrial Classification (ANZSIC) (cat. no. 1292.0). Occupation data classified according to the Australian and New Zealand Standard Classification of Occupations (ANZSCO) Australian and New Zealand Standard Classification of Occupations (ANZSCO), First Edition. (cat. no. 1221.0).

2009

The data item relating to whether usually worked extra hours or overtime and how compensated for overtime worked was refined to include paid and unpaid overtime. Data items relating to shift work were introduced. In 2006 only employees who did not usually work the same number of hours of work each week received questions about whether they were guaranteed a minimum number of hours of work each week. In 2009 all employees were asked whether they were guaranteed a minimum number of hours of work each week.

2012

The data item relating to hours usually worked between 7am and 7pm, which was not available in 2009, was reinstated. However, the data item has been changed to 'Whether usually worked the majority of hours between 7am and 7pm in all jobs' affecting comparability with data from 2006. Data item relating to hours worked in a shift changed from collecting information about the most recent shift to collecting usual hours worked in a shift.

FURTHER INFORMATION

21.16.9 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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21.17 Job Search Experience

FURTHER INFORMATION

21.17.11 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

21.18 Child Employment

CHAPTER 21.18 CHILD EMPLOYMENT

INTRODUCTION

21.18.1 The Child Employment Survey was conducted in June 2006. Data were collected about children aged 5 to 14 years who had worked in the 12 months to June 2006. The survey collected information on the number of children working, their occupation and their patterns of work (e.g. whether children worked in school holidays or school terms, the hours they worked, the time of day they worked).

21.18.2 This section describes only those aspects of the methodology that are unique to this survey, and should be used in conjunction with the overview part of this chapter which outlines the survey methodology used in supplementary surveys.

SURVEY OUTPUT

21.18.3 Data from the survey were published in Child Employment, Australia (cat. no. 6211.0).

21.18.4 Data from the survey relate to children aged 5 to 14 years. The main population of interest is children aged 5 to 14 years who worked at some time in the 12 months to June 2006. Estimates are produced on an original basis only (i.e. not seasonally adjusted) and include:

Socio-demographic information

- Sex; age group;
- state or territory of usual residence;
- area of usual residence;
- country of birth of child;
- year of arrival in Australia;
- country of birth of parents;
- year of arrival in Australia of parent(s); and
- labour force status of parent(s).

Children's working arrangements

- whether child worked in the last 12 months;
- working status in all jobs; working pattern in all jobs;
- usual hours worked per week in main job during school terms/school holidays;
- usual hours worked per week in all jobs during school terms/school holidays;
- usual days worked per week in all jobs during school terms/school holidays;
- whether worked Monday-Friday, Saturday-Sunday or both during school terms/school holidays;
- usual number of days worked per week in all jobs during school terms/school holidays;
- whether usually worked day-time or night-time in all jobs;
- occupation of main job during school terms/school holidays;
- number of weeks worked during the last 12 months in all jobs; and
- mode of travel to and from work; and all reasons/main reason for working.

SCOPE

21.18.5 The scope of the survey was restricted to children aged 5 to 14 years. Information about each child was collected from a parent or guardian who was resident in the same household. The standard scope restrictions for supplementary surveys outlined in the overview part of Chapter 21 also apply to the Child Employment Survey.

DEFINITIONS AND CLASSIFICATIONS

EMPLOYMENT

21.18.6 The definition of employment used in the Child Employment Survey was adapted from the definition used in the Labour Force Survey. Employment occurred when a child worked for pay, profit, commission or payment in kind in a job, business, or on a farm, or worked without pay in a family business or farm at some time in the last 12 months, and included:

- paid work for an employer;
- paid work in a family business or on a farm;
- unpaid work in a family business or on a farm (i.e. contributing family workers);
- work carried out for non-household members (e.g. neighbourhood car washing, lawn mowing) for payment;
- street vending;
- busking;
- work done for payment in kind (e.g. if the child receives goods rather than cash as payment for work done); and
- paid work for non-profit organisations.

The following types of work were excluded from the definition of employment:

- all household work undertaken for their household;
- unpaid work experience (eg. done as part of the child's schooling);
- unpaid probationary periods; and
- unpaid work done for charities and non-profit organisations.

OCCUPATION

21.18.7 Occupation for the Child Employment Survey was coded according to the most detailed level (6 digit, or occupation level) of the

Australian and New Zealand Standard Classification of Occupations (ANZSCO) (cat. no. 1220.0). Output from the survey were presented using different levels of the ANZSCO classification. This alternative classification has been used to present more useful categories for the population because the occupations in which children tend to work differ from those in which adults tend to work.

Classification used for output purposes	ANZSCO Code
Technicians and Trades Workers	3
Community and Personal Service Workers	4
Carers and Aides	42
Other Community and Personal Service Workers	4 (remainder)
Clerical and Administrative Workers	5
Sales Workers	6
Labourers	8
Cleaners and Laundry Workers	81
Farm, Forestry and Garden Workers	84
Food Preparation Assistants	85
Leaflet or Newspaper Deliverer	899915
Other Labourers	8 (remainder)
Other (a)	1, 2 and 7

(a) Includes occupations in ANZSCO categories 1, 2 and 7, namely 'Managers', 'Professionals' and 'Machinery Operators and Drivers'.

SURVEY METHODOLOGY

21.18.8 Personal interviews with a parent or guardian in the child's household were used to collect information for the survey. A mixture of face-to-face and telephone interviewing was used. The number of completed interviews for the survey was 9,564.

FURTHER INFORMATION

21.18.9 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email labour.statistics@abs.gov.au.

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Chapter 22. Multi-Purpose Household Survey

CHAPTER 22. MULTI-PURPOSE HOUSEHOLD SURVEY

INTRODUCTION

22.0.1 The Multi-Purpose Household Survey (MPHS) was introduced in 2004–05. This survey vehicle is designed to provide statistics annually for a number of small, self contained topics, including a number of labour related topics:

- Barriers and Incentives to Labour Force Participation (conducted every two years, commencing with 2004–05);
- Retirement and Retirement Intentions (conducted every two years, commencing with 2004–05); and
- Work Related Injuries (conducted every four years, commencing with 2005–06).

22.0.2 This chapter describes the broad survey methodology of the MPHS. For information on the three labour related MPHS topics that have been conducted to date, see Chapter 22.1 (Barriers and Incentives to Labour Force Participation), Chapter 22.2 (Retirement and Retirement Intentions) and Chapter 22.3 (Work-Related Injuries).

OBJECTIVES OF THE MULTI PURPOSE HOUSEHOLD SURVEY

22.0.3 The MPHS topics are an important part of the ABS's household surveys program, which aims to:

- provide a range of statistics needed to monitor the social and economic wellbeing of Australians with particular reference to important sub-groups of the population; and
- support the development, implementation and evaluation of policies and programs of key Commonwealth and State government agencies.

22.0.4 The information requirements of MPHS topics are determined on the basis of submissions from users on their needs for, and uses of, household survey data. They also reflect ABS deliberations on what is required of a national statistics program in the various subject fields, based on user contact and consultation.

22.0.5 The MPHS is a flexible multi-topic survey vehicle which is used to collect and output data in a timely fashion. The MPHS includes a number of topics that require personal interview (rather than using the any responsible adult (ARA) method) and are therefore unsuited to the monthly supplementary program. The MPHS has a shorter development and output time than the special social surveys to achieve flexibility in responding to user demands as they arise and to allow the ABS to respond to emerging demand and contemporary priorities in a timely way (publications are usually available within six months of the completion of data collection).

22.0.6 In addition to the labour-related topics outlined in paragraph 22.0.1, the MPHS program also includes other social topics not related to

labour statistics, such as household use of information technology, patient experience, family transitions and people's attitudes to the environment.

SURVEY OUTPUT

22.0.7 Estimates from each MPHS topic are released in separate publications. Expanded Confidentialised Unit Record Files (CURFs) are made available from each MPHS via the Remote Access Data Laboratory (RADL). Information on CURFs and the RADL can be found on the ABS web site, under Services – Microdata - CURFs and TableBuilder.

SCOPE

22.0.8 As with the Labour Force Survey (LFS) the scope of the MPHS is restricted to people aged 15 years and over and excludes:

- members of the permanent defence forces;
- certain diplomatic personnel of overseas governments, customarily excluded from census and estimated population counts;
- overseas residents in Australia; and
- members of non-Australian defence forces (and their dependants) stationed in Australia.

22.0.9 In addition, the following people are excluded from most MPHS topics (see paragraphs 18.2 to 18.4 of Chapter 18 for further information):

- people living in very remote parts of Australia;
- people living in non-private dwellings such as hotels, university residences, students at boarding schools, patients in hospitals, residents of homes (e.g. retirement homes, homes for people with disabilities), and inmates of prisons; and
- for 2004–05 only, people aged 15–17 years.

22.0.10 Depending on the topic, there may be further exclusions from scope. For example, some MPHS topics collect information only from a certain population or interest group (e.g. information on retirement is collected from people aged 45 years or over).

COLLECTION METHODOLOGY

22.0.11 The MPHS is conducted in conjunction with the monthly Labour Force Survey (LFS). Approximately one third of the dwellings in the LFS out-going rotation group (one eighth of the sample is rotated out each month) are selected for enumeration in the MPHS. For 2008–09, half of the dwellings in the LFS out-going rotation group were selected for enumeration to compensate for the decreased sample in the LFS (see Chapter 20). From each dwelling selected for the MPHS, one person is randomly selected for interview.

22.0.12 Data are collected using Computer Assisted Interviewing (CAI), whereby responses are recorded directly onto an electronic questionnaire in a notebook during a telephone or face-to-face interview.

22.0.13 Data for MPHS topics are collected each month over a financial year. This reduces the impact of any seasonal effects on the data. For the first MPHS, conducted in respect of 2004–05, interviewing commenced in August 2004 rather than July. For the 2006–07 MPHS, no interviews were conducted in August or September 2006.

SAMPLE DESIGN

22.0.14 The MPHS uses the same sample design as the LFS. The sample used in the MPHS is a subset of the LFS sample. Each month a sample of approximately 1,250 dwellings are selected.

22.0.15 The size of the annual sample selected is approximately 15,000, but the response rates for the MPHS are slightly lower than for the LFS (averaging around 88%). The number of fully responding households is therefore usually around 13,000. The size of the MPHS sample can be increased with user funding.

ESTIMATION METHODS

22.0.16 The estimation technique used for household surveys is the generalised regression estimator.

22.0.17 The survey is benchmarked to the estimated civilian population aged 15 years and over living in private dwellings in each state and territory in non-sparsely settled areas. The process of weighting ensures that the survey estimates conform to person benchmarks by state, part of state, sex, age and household composition.

RELIABILITY OF THE ESTIMATES

22.0.18 Estimates from the MPHS are subject to both sampling and non-sampling error (see Chapter 17 for more detail). The relative standard errors (RSEs) for each of the survey estimates are published in shadow tables. For further information on calculating RSEs from the MPHS, see the technical notes of each publication.

22.0.19 A 'group jack-knife' variance estimator is used to calculate estimates of variance (see Chapter 17 for more detail).

FURTHER INFORMATION

22.0.20 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or at <labour.statistics@abs.gov.au>.

22.1. Barriers and Incentives to Labour Force Participation

CHAPTER 22.1. BARRIERS AND INCENTIVES TO LABOUR FORCE PARTICIPATION

INTRODUCTION

22.1.1 The Barriers and Incentives to Labour Force Participation topic was first conducted in 2004–05 as part of the Multi-Purpose Household Survey (MPHS), which is a supplement to the monthly Labour Force Survey (LFS). This topic is included in the MPHS every two years.

22.1.2 The survey topic collects information about people aged 18 years and over who are either not employed or who usually work less than 35 hours a week. The survey provides information on characteristics of people who are not participating, or not participating fully, in the labour force and the factors that influence people to join or leave the labour force.

22.1.3 This section describes only those aspects of the methodology that were unique to this survey topic and should therefore be read in conjunction with the overview part of this chapter (Chapter 22), which outlines the survey methodology used in the MPHS.

SURVEY OUTPUT

22.1.4 Data from the survey are published in Barriers and Incentives to Labour Force Participation, Australia (cat. no. 6239.0). Microdata are available in a Confidentialised Unit Record File (CURF) or Table Builder - see Technical Manual: Multipurpose Household Survey, Expanded CURF, Australia (cat. no. 4100.0) and Microdata: Barriers and Incentives to Labour Force Participation, Retirement and Retirement Intentions (cat. no. 6238.0.55.001). Other estimates are available on request.

22.1.5 Data from the survey relate to people aged 18 years and over. The main populations of interest are people who are not employed (i.e. either unemployed or not in the labour force), and people who usually work less than 35 hours a week in all jobs. Estimates are produced on an original basis only (i.e. not seasonally adjusted) and the core content, which is collected each cycle, includes:

Socio-demographic information

Sex; age; marital status; relationship in household; age of youngest child; whether household has children aged under 15 years; state or territory of usual residence; country of birth and period of arrival in Australia; level of highest educational attainment; weekly gross income; sources of income; partner's weekly gross income; household income; and partner's labour force status.

People who usually work 0–34 hours per week in all jobs

Hours usually worked in all jobs; status in employment; hours usually worked in main job; satisfaction of hours worked; satisfaction of current work arrangements; occupation; industry; duration of current main job; details of last job; reason for ceasing last full-time job; unpaid activities when not working; whether prefers to work more hours than usually works; preferred number of hours; all reasons for not wanting to work more hours; main childcare reason for not wanting more hours; whether looking for more hours; whether looking for part-time or full-time work; all reasons for not looking for more hours; main reason for not looking for more hours; main reason not available for more hours; and difficulties finding more hours.

Unemployed people

Duration of current period of unemployment; unpaid activities; difficulties finding work; whether has ever had a full-time job; whether previous work was full-time or part-time; time since last job; employment type of last job; occupation and industry of last job; and reason for ceasing last job.

People who aren't in the labour force

Whether would like a paid job; whether would prefer to work full-time or part-time; preferred length/tenure of job; whether would accept a short-term/temporary job; whether available to start work in the reference week; time until available to start work; main reason not available to start work; main child care reason not available to start work; main child care reason not looking for work; main childcare reason for not wanting work; all/main reasons for not wanting to work; whether looking for work; and difficulties finding work.

22.1.6 Additional detail was included in the 2008–09 and 2012–13 survey. The additional data collected every second cycle includes:

- incentives to join or increase participation in the labour force (work related, skill related, financial, childcare related, caring related and other incentives);
- lowest gross wage per hour respondents would work for;
- whether respondents would return to work if important conditions were available; and
- self assessed health status.

22.1.7 All data collected are compiled according to concepts and definitions outlined in Chapter 4 (employment measures and classifications), Chapter 5 (underemployment), Chapter 6 (unemployment), Chapter 7 (persons not in the labour force) and Chapter 16 (other classifications used in labour statistics).

SCOPE

22.1.8 The scope of this survey topic is restricted to persons aged 18 years and over. The scope of this survey has been increased in 2012–13 to include unemployed people and people employed less than 35 hours a week in all jobs (an increase from less than 16 hours). The standard scope restrictions for the MPHS outlined in Chapter 22 also apply to this survey topic.

RELATED SURVEYS

22.1.9 The ABS conducts several surveys to collect information on people who are not participating, or are not participating fully, in the

workforce. A number of annual surveys conducted as supplements to the LFS provide information on these people, including the Persons Not in the Labour Force Survey, the Job Search Experience Survey and the Underemployed Workers Survey. The Barriers and Incentives to Labour Force Participation topic is designed to consider and compare various aspects of factors which influence participation.

22.1.10 Data from the supplementary surveys are not directly comparable with data from Barriers and Incentives to Labour Force Participation as there are differences in scope, collection methodology and sample design (including sample size). For example, the three supplementary surveys are conducted in a particular month each year, whereas Barriers and Incentives to Labour Force Participation data are usually collected over the 12 months of a financial year. Information for the supplementary surveys is collected using the Any Responsible Adult methodology, whereas the Barriers and Incentives topic uses personal interviewing. See chapters Chapter 21 and Chapter 22 for more information.

DATA COMPARABILITY OVER TIME

22.1.11 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Changes affecting the LFS may also affect this survey. Such changes are outlined in Chapter 20 and are not repeated here.

2004–05

Initial survey conducted (August 2004 to June 2005).

The scope of the survey includes people working less than 16 hours.

Availability was not determined for those people who usually worked 0 to 15 hours per week and preferred to work more hours but had not done anything in the four weeks prior to the reference week to obtain more hours of work. Availability for this group was imputed, based on information collected in the quarter months of the LFS, rather than being directly collected.

2006–07

Data on availability was collected in all months for people who usually worked 0–15 hours per week and preferred to work more hours but had not done anything in the four weeks prior to the reference week to obtain more hours of work. This data was imputed for the 2004–05 survey.

For the data items 'all/main reason for not wanting work/more hours', the response category 'caring for children/pregnancy/home duties' was split.

For the data items 'all/main reasons for not wanting work/more hours' the category 'no need/retired from full-time work (for now)' was expanded to 'no need/satisfied with current arrangements/retired from full-time work (for now)'.

Questions about 'last worked full-time' were changed to 'last worked in a job of 35 hours or more'.

For the items 'all reasons/main reason not looking for work/more hours', the category 'no need/satisfied with current arrangements/retired from full-time work (for now)' was added, based on detail collected about 'other' type responses.

For the data item 'preferred number of hours', the actual number of hours was collected for persons not in the labour force who said they would prefer 'full-time hours'.

The following data items were added: Main reason not wanting work/more hours; Main childcare reason not looking for work/more hours; Age of youngest child; Partner's labour force status; and Partner's full-time or part-time status in employment.

2008–09

The following new incentives to join/increase participation in the labour force data items were added: work related incentives; financial incentives; childcare related incentives; caring incentives; other incentives; lowest gross wage per hour that respondent would work for; whether respondent would return to work if important conditions were available. The purpose of these items was to inform on the types of incentives to encourage people to increase their participation.

The data items 'self assessed health status' and 'all reasons not available to start work/more hours' were also added.

2010–11

Questions on incentives to join or increase participation in the labour force and self assessed health that were included in the 2008–09 survey, were excluded for this cycle.

2012–13

The scope of the survey was expanded to include all employed people who were working less than 35 hours. For previous surveys, only employed people who worked less than 16 hours were included in the survey. Incentives to join/increase participation in the labour force was included in 2012–13 survey. This module was last collected in the 2008–09 survey.

Unemployed people were asked incentives questions for the first time. Self-assessed health status, whether had private health insurance cover and housing tenure items were included in the 2012–13 survey. These items were last collected in the 2008–09 survey. The following new items were added: satisfaction of hours worked; satisfaction of current work arrangements; main childcare reason for not wanting work/more hours; and long term health conditions. Microdata were not released for the 2012–13 survey.

FURTHER INFORMATION

22.1.12 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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22.2. Retirement and Retirement Intentions

CHAPTER 22.2 RETIREMENT AND RETIREMENT INTENTIONS

INTRODUCTION

22.2.1 The Retirement and Retirement Intentions topic is included in the Multi-Purpose Household Survey (MPHS) every two years, beginning with the 2004–05 reference period. Data on retirement and retirement intentions were previously collected on an irregular basis between 1980 and 1997 in a survey conducted as a supplement to the Labour Force Survey (LFS). (see Chapter 21.11 for further details).

22.2.2 Data from the survey topic are used to examine changes in retirement trends over time, factors which influence retirement and the income arrangements made by retirees and potential retirees for their retirement.

22.2.3 This section describes only those aspects of the methodology that were unique to this survey topic and should therefore be read in conjunction with the overview part of this chapter (Chapter 22, which outlines the survey methodology used in the MPHS).

SURVEY OUTPUT

22.2.4 Data from the survey topic are published in Retirement and Retirement Intentions, Australia (cat. no. 6238.0). Microdata are available in a Confidentialised Unit Record File (CURF) or Table Builder - see Technical Manual: Multipurpose Household Survey, Expanded CURF, Australia (cat. no. 4100.0) and Microdata: Barriers and Incentives to Labour Force Participation, Retirement and Retirement Intentions (cat. no. 6238.0.55.001). Other estimates are available on request.

22.2.5 The survey topic collects information about the retirement status and retirement intentions of people aged 45 years and over who have, at some time, worked for two weeks or more. Estimates are available on an original basis only (i.e. not seasonally adjusted) and include:

Socio-demographic information

Sex; age; marital status; relationship in household; age of youngest child in household; number of children aged less than 15 years; state or territory of usual residence; remoteness areas and area of usual residence, country of birth and period of arrival in Australia; educational attainment.

Persons who have retired from the labour force

Details of last job (e.g. full-time or part-time status; status in employment; occupation; industry; reason for ceasing last job); age at retirement from the labour force; time since retirement; sources of income at retirement; details about superannuation (e.g. whether contributed to a superannuation scheme; time contributing; methods of disbursement of lump sum payment); whether was self funded at retirement; whether is currently self funded in retirement.

Persons who intend to retire from the labour force

Details of current job (e.g. full-time or part-time status; status in employment; occupation; industry); age intends to retire; expected time until retirement; factors influencing decision about when to retire from the labour force; all and main expected sources of income at retirement; previous retirement status (whether had previously retired from work or not); reasons for returning to work (for those who had previously retired); details about superannuation (e.g. whether contributed to a superannuation scheme; time contributing); satisfaction with current hours worked and current work arrangements; transition to retirement plans; and whether expects to be self funded in retirement.

22.2.6 Additional detail was included in the 2008–09 and 2012–13 surveys. The additional data collected every second cycle includes:

- self assessed health status;
- whether had private health insurance; and
- housing tenure.

22.2.7 All data collected are compiled according to concepts and definitions outlined in Chapter 2 (Currently economically active population), Chapter 4 (Employment measures and classifications) and Chapter 16 (Other classification used in labour statistics).

SCOPE

22.2.8 The scope of this survey topic is restricted to persons aged 45 years and over. The standard scope restrictions for the MPHS outlined in the overview part of Chapter 22 also apply to this survey topic.

RELATED SURVEYS

22.2.9 Data on retirement and retirement intentions were previously collected in a survey conducted as a supplement to the LFS. The Retirement and Retirement Intentions supplementary survey was conducted on an irregular basis between 1980 and 1997. Data from the supplementary survey and the MPHS topic are not directly comparable as there are differences in the concepts measured, scope, collection methodology and sample design (including sample size). For example, the November 1997 supplementary survey definition of 'retired from the labour force' comprised 'persons who had retired from work or were looking for work of more than 10 hours per week, and did not intend to work in the future' and 'persons that have never worked more than 10 hours per week', whereas the MPHS definition is 'persons who had previously worked for two weeks or more and had retired from work or looking for work, and did not intend to look for, or take up, work at any time in the future'. See Chapter 21 and Chapter 22 for more information.

22.2.10 Data on retirement and retirement intentions was also collected as a component of the 2007 Survey of Employment Arrangements, Retirement and Superannuation (SEARS), which was earlier conducted in 2000 as the Survey of Employment Arrangements and Superannuation (SEAS) (see Chapter 23). While SEARS had a similar focus to SEAS, and collected a similar range of data, changes in the survey scope and methodology, and in the collection and presentation of information, mean that estimates for the surveys may not be strictly comparable.

DATA COMPARABILITY OVER TIME

22.2.11 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Changes affecting the LFS may also affect this survey. Such changes are outlined in Chapter 20 and are not repeated here.

2004–05

Survey conducted (August 2004 to June 2005) on MPHS for the first time. Data published in Retirement and Retirement Intentions, Australia (cat. no. 6238.0).

2006–07

The data item 'intentions to retire from full-time or part-time work' and the population 'intends to retire from the labour force' were

determined from responses to a question on age intends to permanently give up work'. In 2004–05, people who answered 'don't know' were included in the 'intends to retire' population. For the 2006–07 survey the 'don't know' category was replaced with the categories 'don't know age will retire' and 'don't know whether will retire'. People who reported 'don't know age will retire' were included with the 'intends to retire' population whereas people who reported 'did not know whether will retire' were excluded from this population. This change had the effect of slightly decreasing the number of people who intend to retire and should be kept in mind when making comparisons to 2004–05 data.

An additional category of 'partner's income' was included in the following data items: 'all/main source of income at retirement', and 'all/main expected source of income at retirement'. In 2004–05, people relying on their partner's income would have been included in the 'other' or 'no income' categories.

2008–09

In cases where people could not report an exact age they 'intend to permanently give up work', they were given the option of responding with an age range. These range responses were included in 'average age intends to retire' by substituting the low-point of the range into the calculation.

New content was added to the 2008–09 survey including transition to retirement plans, sources of funds for meeting living costs, intentions for a healthy/active retirement, housing tenure and self assessed health.

High reporting of non-personal income money sources to personal income questions in previous cycles of this survey led to the inclusion of 'all/main sources of funds for meeting living costs' data items in 2008–09 to improve this information. As a result, care should be taken when comparing with data from previous years. See paragraphs 22–24 of the Explanatory Notes in the publication for more information.

2010–11

Questions on intentions for a healthy/active retirement, housing tenure, whether had private health insurance and self assessed health that were included in the 2008–09 survey were not included in 2010–11. Questions on transition to retirement plans were retained as a core component of the survey.

2012–13

The following new items were collected: satisfaction with current hours worked, satisfaction with current work arrangements, whether self funded at retirement, whether is currently self funded in retirement, whether expects to be self funded in retirement and transition to retirement plans. Questions were also included on self assessed health status, housing tenure; and whether had private health insurance, which were last collected in the 2008–09 survey.

Microdata were not released for the 2012–13 survey.

FURTHER INFORMATION

21.11.12 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email labour.statistics@abs.gov.au.

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22.3. Work Related Injuries

CHAPTER 22.3. WORK-RELATED INJURIES

INTRODUCTION

22.3.1 The work-related injuries topic is included in the Multi-Purpose Household Survey (MPHS) every four years, and was first collected in 2005–06. Data on work-related injuries were previously collected in September 2000 as part of the supplementary survey program (see Chapter 21.15 for further details).

22.3.2 The survey topic collects information about persons who worked at some time in the last 12 months and experienced a work-related injury or illness in that period. The purpose of the survey topic is to provide information on the extent of work-related injuries and the characteristics of workers who experience them. Data collected in the survey topic assists in monitoring programs and formulating policies in relation to workers' compensation and occupational health and safety.

22.3.3 This section describes only those aspects of the methodology that are unique to this survey topic and should therefore be read in conjunction with Chapter 22 which outlines the survey methodology used in the MPHS.

SURVEY OUTPUT

22.3.4 Data from the survey topic are published in Work-Related Injuries, Australia (cat. no. 6324.0) and are available in a Confidentialised Unit Record File (CURF). For more information on the CURF, see Technical Manual: Work-Related Injuries, Expanded CURF, Australia, 2009–10 (cat. no. 6324.0.55.001) and Multi-Purpose Household Survey, Expanded CURF, Technical Manual, 2005–06 (cat. no. 4100.0). More detailed data are available on request.

22.3.5 The survey topic collects information about people aged 15 years and over who worked at some time in the last 12 months and who experienced a work-related injury or illness in that period. For those who experienced multiple work related injuries or illnesses in the 12 month period, the most recent work related injury or illness is reported. Estimates are produced on an original basis only (i.e. not seasonally adjusted), and include:

Socio-demographic information

Sex; age; marital status; relationship in household; state or territory of usual residence, area and region of usual residence; remoteness area; birthplace and year of arrival in Australia, educational attainment; whether attending educational institution (15–24 year olds); current labour force status.

Income

Current weekly gross personal income from all sources; all sources of income; main source of income; all types of government pension

/ allowance received; total gross weekly household income from all sources.

Employment characteristics (both current main job and job in which most recent work-related injury or illness occurred)

Labour force status; employment type; hours usually worked (also in all jobs); duration of job; full-time or part-time status; status in employment; occupation; industry; whether worked shift work; expected future duration in job; whether worked on a contract.

Most recent work-related injury or illness information

Length of absence from work; whether received financial assistance for medical expenses or income loss; all sources of financial assistance for medical expenses or income loss; whether applied for and whether received workers compensation; main reason did not apply for workers' compensation; whether occurred within the first 6 months of starting job; type of illness/injury sustained; how illness/injury occurred; location where occurred; main reason for ceasing job; whether returned to work at any time after; whether received any formal training in OH&S risks in workplace at any time prior; whether received formal training in OH&S risks in the workplace in current or most recent job; type of training undertaken.

22.3.6 Data collected in the survey topic are compiled according to concepts and definitions outlined in Chapter 2 (Currently economically active population) Chapter 4 (Employment measures and classifications), Chapter 15 (Occupational injuries and diseases), and Chapter 16 (Other classifications used in labour statistics).

22.3.7 Work-related injuries or illnesses have been classified according to the Type of Occurrence Classifications System (TOOCS), which was developed by Safe Work Australia for coding workers' compensation claims. The classification used in the work-related injuries survey topic is based on the TOOCS nature of injury codes (type of injury or illness) and the TOOCS mechanism of injury codes (how the injury or illness occurred).

SCOPE

22.3.8 The scope of this survey topic is restricted to persons aged 15 years and over. The standard scope restrictions for the MPHS outlined in Chapter 22 also apply to this survey topic.

SAMPLE SIZE

22.3.9 The size of the sample for the work-related injuries topic in 2005–06 and 2009–10 was increased through user funding to improve the reliability of the estimate. The increase in sample size was achieved by selecting an additional one-third of dwellings in the outgoing rotation group, resulting in approximately double the standard MPHS sample. The initial total sample was approximately 37,700 private dwellings in 2005–06 and 38,600 private dwellings in 2009–10, which reduced to 32,270 and 32,760 respectively after sample loss.

RELATED SURVEYS

22.3.10 Data on work-related injuries were previously collected in September 2000 as part of the supplementary survey program. Data from the supplementary survey and the MPHS topic are not directly comparable as there are differences in the concepts measured, scope, collection methodology; and sample design (including sample size). The following is a summary of the methodological differences between the September 2000 supplementary survey and the MPHS survey topic:

- The MPHS topic, collects data through a personal interview with one randomly selected household member. In contrast, the September 2000 supplementary survey collected data for all household members in scope from one adult member of the household (any responsible adult methodology).
- In the MPHS topic, survey respondents are specifically asked to include any injuries or illnesses that occurred at work, travelling to and from work, or while on any work breaks. In the September 2000 supplementary survey, respondents were not specifically asked to include injuries or illnesses that occurred during these periods.
- In the MPHS topic, recurring injuries or illnesses were only included if the first occurrence was in the last 12 months. In the September 2000 supplementary survey, aggravation of an existing injury or illness was included if the aggravation was experienced while at work in the last 12 months.
- The MPHS topic includes any injury or illness suffered by an employee resulting from disciplinary action taken against the employee or failure by the employee to obtain a promotion, transfer or benefit in connection with his or her employment. These were excluded in the September 2000 supplementary survey.
- For the MPHS topic, the estimates are based on data collected over the 12 months of the financial year, while the September 2000 supplementary survey collected data in one month.

22.3.11 See Chapter 21 and Chapter 22 for more information on the survey methodologies for the MPHS and the supplementary surveys.

DATA COMPARABILITY OVER TIME

22.3.12 In order to provide a degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and analysis methods are made as infrequently as possible. Changes affecting the LFS may also affect this survey. Such changes are outlined in Chapter 20 and are not repeated here.

2005–06

Survey conducted (July 2005 to June 2006) on MPHS for the first time. Data published in Work-Related Injuries, Australia (cat. no. 6324.0).

2009–10

The following new data items were included: remoteness area; number of days of the week/shifts usually worked in job where most recent work-related injury or illness occurred; whether received formal training in OH&S risks in the workplace in current or most recent job; type of OH&S training undertaken.

The data item 'whether received any formal training in OH&S risks in workplace at any time prior to work-related injury or illness' was determined from responses to questions about whether received particular types of training. In 2005–06 this item was determined by asking a question only about whether any training had been received, not particular types.

FURTHER INFORMATION

22.3.13 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 23. Survey of Employment Arrangements and Superannuation

CHAPTER 23. SURVEY OF EMPLOYMENT ARRANGEMENTS, RETIREMENT AND SUPERANNUATION

INTRODUCTION

23.1 The Survey of Employment Arrangements, Retirement and Superannuation (SEARS) is a household survey that was conducted throughout Australia between April and July 2007. Its predecessor, the Survey of Employment Arrangements and Superannuation (SEAS), conducted in 2000, was developed in response to the increasing demand for information on the working arrangements and superannuation of Australians. SEARS 2007 survey collected detailed information about employment arrangements, working patterns, work and caring, retirement and retirement intentions, superannuation coverage and other characteristics.

SURVEY OUTPUT

23.2 SEARS collected information to describe the diversity of employment arrangements in Australia, including the types of employment people have, aspects of job stability, flexibility, and working patterns; working arrangements that people use, or would like to use to balance their work and caring responsibilities; plans that people aged 45 years and over have for retirement, reasons for retiring and retirement income; and the superannuation coverage of individuals, including superannuation contributions and account balances.

23.3 Information is published in Employment Arrangements, Retirement and Superannuation (cat. no. 6361.0), with additional information accessible through the Confidentialised Unit Record File (CURF) or through customised tabulation and consultancy services. Further information on the CURF and the Remote Access Data Laboratory (RADL) can be found on the ABS website via Services: Find specialist information and services: Microdata CURFs and Table Builder.

23.4 The employment arrangements component of the survey focuses on a person's main job (the job in which they usually work most hours) and second job (where applicable). A reduced set of information was also collected for a person's third and fourth job, as well as specific details on all jobs (eg. working patterns).

23.5 Two new topics on how people balance their work and caring responsibilities, and about the retirement and retirement intentions of people aged 45 years and over were also included in SEARS 2007.

23.6 Estimates are produced on an original basis only (i.e. not seasonally adjusted) and include:

Socio-demographic information

State or territory of usual residence, capital city/balance of state, region of usual residence, sex, marital status, relationship in household, country of birth, year of arrival, age group and whether had child(ren) under 15 years.

Employment characteristics

Full-time or part-time status, occupation, industry, status in employment, hours actually worked, hours usually worked and employment type.

Employment arrangements

Paid sick leave and paid holiday leave, whether usually works extra hours or overtime, whether has say in start and finish times, whether usually works shift work, whether feels rushed or pressed for time, aspects of job stability, whether used working arrangements to provide care, whether earnings vary and whether had an arrangement with employer to work at home.

Retirement and retirement intentions

Retired from the labour force, age at retirement, reasons for retirement, retirement intentions, plans to phase in retirement and age intends to retire.

Superannuation

Superannuation contributions, self-funding retirees, superannuation balance and superannuation lump sum payments.

23.7 Survey respondents were asked to refer to their superannuation statements when reporting their superannuation contribution and balance amounts. Some respondents who were unable to refer to appropriate superannuation records chose to authorise their superannuation fund to provide specific information to the ABS, on behalf of their fund member, about their superannuation contributions and balances.

SURVEY METHODOLOGY

23.8 The initial sample for the 2007 survey consisted of approximately 18,500 dwellings. Approximately 16,000 households remained in the survey after sample loss (eg. households selected in the survey which had no usual residents in scope of the survey, vacant or derelict buildings, and dwellings under construction). Of these, 13,736 households (85%) were fully responding, that is, households where everyone

in scope for the survey answered all the questions in the survey. In total, 26,972 people responded to the survey.

SCOPE

23.9 The scope of the survey covered people aged 15 years and over who were usual residents of private dwellings throughout Australia, excluding very remote areas, and covering about 97 per cent of people living in Australia. In the previous SEAS 2000 survey, people over 69 were also excluded.

23.10 The survey collected information by personal interview from people who regarded the selected private dwellings as their main home. Visitors to selected dwellings were not eligible to participate in the survey. Private dwellings are houses, flats, home units, caravans, garages, tents and other structures that are used as places of residence at the time of interview. Long-stay caravan parks are also included. These are distinct from non-private dwellings which include hotels, boarding schools, boarding houses and institutions. At 30 June 2007, there were 374,000 people aged 15 years and over living in non-private dwellings throughout Australia. The exclusion of these people (2% of the population) is unlikely to have affected the estimates.

ESTIMATION METHODS

23.11 Private dwellings included in the survey in each State and Territory were selected at random using a stratified, multistage cluster design. All usual residents of the dwelling aged 15 years and over were asked to participate in the survey. The sample was spread across the States and Territories in order to produce estimates that have a relative standard error (RSE) of no greater than 10% for characteristics that are relatively common in the national population, that is, that at least 10% of the population would possess.

23.12 In SEARS there were two main types of 'sample units': persons and households. Weights were calculated separately for households and persons. Only complete households were given a household weight but all fully responding persons, including those who belonged to an incomplete household, were given a person weight. The use of all fully responding persons with person level estimates allows a higher level of accuracy to be achieved for those estimates. For this reason, an estimate obtained using the person weights will not exactly match the same estimate obtained using household weights. For example, if the estimate of all persons is calculated using person weights it will not exactly match the same estimate calculated by multiplying the number of persons in each household by the household weights.

23.13 The initial weights were calibrated to align with independent estimates of the population of interest, referred to as benchmarks. The population and household benchmarks used in SEARS were for the not-very-remote population of Australian residents in private dwellings. Population benchmarks are projections of the Estimated Resident Population (ERP) data based on the 2001 Census of Population and Housing. Person level initial weights were calibrated to meet the benchmarks at designated state by area of usual residence by sex by age group classes. The household weights were calibrated to meet the household benchmarks at designated state by area of usual residence by household composition classes.

23.14 Weights calibrated against population benchmarks ensure that the survey estimates conform to the independently estimated distribution of the population rather than to the distribution within the sample itself. Calibration to population benchmarks helps to compensate for over- or under-enumeration of particular categories of persons and households which may occur due to either the random nature of sampling or non-response. Benchmarking also ensures that survey estimates have some consistency with other ABS surveys.

RELIABILITY OF THE ESTIMATES

23.15 Estimates from SEARS are subject to both sampling and non-sampling error (see Chapter 17 for more detail). The relative standard errors of survey estimates are included in each SEARS publication, and survey estimates with high relative standard errors are flagged with asterisks.

DATA COMPARABILITY OVER TIME

23.16 While SEARS 2007 has a similar focus to SEAS 2000, and collected a similar range of data, changes in the survey scope and methodology and data collected, result in the estimates from the two surveys not being strictly comparable.

2000

Household survey conducted between April and June 2000.

Lump sum superannuation payments received in only the last year were collected in SEAS 2000 (this was expanded in SEARS 2007 to include payments received in the last 4 years).

2007

SEARS 2007 was conducted using computer aided personal interview from 2 April to 7 July 2007.

Changes include a name change to reflect the addition of retirement and retirement intentions, plus changes to the underlying concepts of some employment arrangements data items.

Superannuation changes to data items, including separate identification of salary sacrificed contributions to superannuation and separate identification of self managed funds.

Change in scope from persons 15 to 69 years to all persons 15 years and over.

FURTHER INFORMATION

23.17 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

CHAPTER 24. SURVEY OF EMPLOYMENT AND UNEMPLOYMENT PATTERNS

INTRODUCTION

24.1 The Survey of Employment and Unemployment Patterns was a longitudinal survey covering the reference period September 1994 to September 1997. Data for the survey were collected in three waves - with each wave covering a 12 month reference period.

24.2 Longitudinal surveys involve collecting data from the same respondents at intervals over an extended period of time, with the information collected on each occasion linked together to provide insights into the transitions over time.

24.3 In May 1994 the Government released a White Paper on Employment and Growth, titled 'Working Nation'. The overriding objective of Working Nation was to provide a comprehensive program to boost jobs growth, increase skill formation in the workforce, and ensure the long-term unemployed were not left behind during the economic recovery.

24.4 The central feature of the Working Nation initiatives was the 'Job Compact'. The Job Compact was targeted at the long-term unemployed, and provided individual case management and access to a range of labour market programs leading to a firm offer of a job placement for 6 to 12 months. The assessment of these initiatives was the driving force for the creation of the survey.

24.5 The objectives of the survey were to provide information on the dynamics of the labour market and to assist in the assessment of the Working Nation initiatives.

SURVEY OUTPUT

24.6 A range of data was made available from the survey in the form of publications, unit record data, special tabulations and occasional papers. Broad estimates were published in *Australians' Employment and Unemployment Patterns, 1994 to 1997* (cat. no. 6286.0). An expanded Confidentialised Unit Record File (CURF) is available via the Remote Access Data Laboratory (RADL). For more information on this CURF, see *Technical Paper: Australians' Employment and Unemployment Patterns: Expanded CURF, Australia, 1994 to 1997* (cat. no. 6286.0.55.002). Information on CURFS and the RADL can be found on the ABS web site, under *Services We Provide - CURFS*.

TYPES OF VARIABLES

24.7 As part of the survey a wide range of labour market related data was collected. Variables were grouped into five categories - fixed, dynamic, episodal, occurrence, and summary.

- Fixed variables were data items not inherently subject to change, and were therefore only collected in the first wave. They included: sex, age, birthplace, year of arrival, employment history.
- Dynamic variables were subject to change over time, and were updated each year at the time of interview. They included: geographic location, housing, labour force status, current study, educational attainment.
- Episodal variables were collected in respect of a particular episode, defined as a particular activity or occurrence within a reference period or spanning more than one reference period. Three types of episodes were identified: episodes of labour market activity; episodes of labour market support from the then Department of Employment, Education, Training and Youth Affairs (DEETYA); and episodes of income support. See below for further details.
- Occurrence variables comprised periods of in-house training and external training, and employment offers.
- Summary variables were data items that summarised one or more episodal variables.

Episodes of labour market activity

24.8 Episodes of labour market activity encompassed every day of the reference period and comprised periods of working, looking for work, or absence from the labour market (i.e. neither working nor looking). If a respondent had two or more jobs at the same time, each was treated as a separate episode. A change of employer constituted a new episode. An episode of working would overlap with an episode of looking for work if a respondent was working and looking for work at the same time. However, neither episodes of work nor episodes of looking for work could overlap with episodes of absence from the labour market.

Episodes of DEETYA labour market support

24.9 Episodes of DEETYA labour market support comprised periods of registration with the then Commonwealth Employment Service (CES), case management and Labour Market Program participation. Data for these episodes were provided by DEETYA and required the respondents' consent.

Episodes of income support

24.10 Episodes of income support comprised periods during which the respondent received income support. Data for these episodes were provided by the then Department of Social Security (DSS) and required the respondents' consent.

LEVELS OF OUTPUT

24.11 The focus of the survey was on the selected respondent, and so detailed information at the income unit, family and household level is not available. However, because a limited amount of information was collected from the respondent about their spouse and other usual residents, some broad household and family level information is available.

SURVEY OUTPUT

24.12 Estimates from the survey include:

Socio-demographic data	Sex, age, marital status, birthplace, year of arrival in Australia, Aboriginal or Torres Strait Islander origin, educational attainment, language use, disabilities, housing tenure, household/family structure, and geographic region.
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Employment	Labour force status, trade union membership, and employment history.
Episodes of working	Start and finish date of each episode, status in employment, hours worked, permanent/casual, industry, occupation, earnings, sector, job preferences, and method of job attainment.
Episodes of looking for work	Start and finish date of each episode, whether looking for full-time or part-time work, active steps taken to find work, difficulties in finding work, mobility, and reservation wage.
Episodes of absence from the labour market	Start and finish date of each episode, availability to start work, and main activity.
Employment offers	Offers of employment, whether offer was accepted, and reasons for not accepting offer.
Training	Types of training course, time spent on course, field of course, and course outcome.
Income	Income, and sources of annual income.
Labour Market Support from DEETYA	Start and finish date of CES registration, reason ceased CES registration; type of Labour Market Programs, start and finish date of Labour Market Program, post-program outcomes; start and finish date of case management, case management outcome; and reading, writing and speaking proficiency.
Income support from DSS	Start and finish date of income support, type of income support, and amount of income support.

THE TARGET POPULATION

24.13 The target population consisted of those people considered to be most likely to be currently eligible for labour market assistance or likely to become eligible for assistance in the near future. It was determined after consultation with government officials, labour market analysts and other users and was designed to enable the survey objectives to be met in the most efficient manner.

24.14 In broad terms, the target population comprised persons resident in private dwellings who were aged 15 to 59. Within this broad population, there were three subgroups:

- Jobseekers - comprising unemployed persons, part-time workers looking for a job with more hours, and others indicating a desire to join the labour force in the near future. The purpose of this group was to facilitate the study of differences between the outcomes of Labour Market Program participants and those of 'similar' groups not participating in the Job Compact.
- Population reference group - comprising a random sample of the population aged 15 to 59. It was included because of the need to have a reference group of the general population so that outcomes of various programs could be assessed in the context of general labour market conditions.
- Labour Market Program participants - a sample of persons who commenced a Job Compact job placement and/or commenced a training program between July 1994 and February 1995. This component of the sample was included to ensure that the initial sample included a sufficient number of Job Compact participants.

SCOPE AND COVERAGE

24.15 The scope of the survey was all persons aged 15-59 years except:

- overseas residents in Australia;
- certain diplomatic personnel of overseas governments, customarily excluded from the Census and estimated resident population counts;
- members of non-Australian defence forces (and their dependants) stationed in Australia; and
- certain remote areas in the Northern Territory and Queensland which were difficult or costly to enumerate.

24.16 The survey was conducted in urban and rural areas in all States and Territories and only included persons living in private dwellings.

24.17 For the Jobseeker and Population reference group subgroups, coverage rules were applied to ensure each person in scope was associated with only one dwelling and hence had only one chance of selection. Coverage rules were not needed for the Labour Market Program subgroup as specific people had already been identified as members of this subgroup.

SURVEY METHODOLOGY

PANEL ESTABLISHMENT AND DATA COLLECTION

24.18 Screening interviews were conducted between 24 April and 7 July 1995, for simplicity referred to as 'May 1995', across approximately 69,000 households. The purpose of these interviews was to identify respondents falling into the Jobseeker subgroup, and to establish the Population reference group. The screening interviews were conducted on an ARA basis. Following the identification of a target group member, personal interviews were conducted with potential respondents. Of those identified, 95% were recruited.

24.19 The Labour Market Program subgroup was not asked screening questions, as specific people had already been identified as members of this subgroup.

COLLECTION WAVES

24.20 There were three collection waves for the survey:

- wave 1 - reference period 5 September 1994 to 3 September 1995;
- wave 2 - reference period 4 September 1995 to 1 September 1996; and

- wave 3 - reference period 2 September 1996 to 31 August 1997.

24.21 Data for each collection wave were collected over a six week period following the end of the reference period. Questions relating to episodal data required the respondent to recall for what period(s) they had been working, looking for work or absent from the labour market. To obtain occurrence data, respondents needed to recall details of training courses and job offers received in the past 12 months.

24.22 Computer Assisted Interviewing was used in the second and third waves.

USE OF DOCUMENTARY SOURCES (ADMINISTRATIVE DATA)

24.23 With respondents' consent, data collected directly from them during the interview were supplemented with data about CES registration, case management and Labour Market Program participation (from DEETYA) and data about income support (from DSS). This minimised the interview time for respondents and ensured that accurate information was available about their involvement with labour market assistance programs and about their receipt of income support.

SAMPLE DESIGN

24.24 A probability sample design was used. The Jobseeker and Population reference group samples were drawn from the Population Survey Master Sample and excluded special dwellings and the remote and sparsely settled stratum. The Labour Market Program participants sample was drawn from a list of such participants provided by DEETYA.

JOBSEEKER SUBGROUP

24.25 The design used for the Jobseeker subgroup sample was the same as that used in the Labour Force Survey (see Chapter 20 for more detail). However, three major adjustments were made to the sample selection methodology:

- CDs were selected in the survey sample with unequal probabilities according to the number of unemployed persons resident in the CD at the time of the 1991 Census enumeration. That is, CDs with a high proportion of resident unemployed persons in August 1991 were given a higher probability of selection in the survey sample than CDs with a low proportion of unemployed persons. The weighting scheme for the Jobseeker subgroup accounted for the unequal probability sampling scheme.
- More dwellings than usual were selected in the survey sample to be screened for Jobseekers - roughly twice as many dwellings as are in the Labour Force Survey.
- The sample was designed to be more geographically clustered than the Labour Force Survey. Such clustering produces a substantial saving in survey field costs for a small loss of sample efficiency.

24.26 For the Jobseeker subgroup, all persons aged 15 to 59 years in selected dwellings were 'screened' to determine whether or not they were a 'Jobseeker'. Only Jobseekers were recruited to the Jobseeker subgroup.

LABOUR MARKET PROGRAM PARTICIPANTS

24.27 The sample methodology for this subgroup was that of a list-based probability sample. DEETYA provided the ABS with a list of eligible persons. In order to produce a more efficient sample, the list was stratified into homogenous (similar) groups (strata) and then a random sample was selected from each group. The stratification variables used were: State of usual residence, length of unemployment, and job placement/training status. In total 2,300 people were selected. This number allowed for various types of sample loss, such as persons refusing to allow DEETYA to pass their name to the ABS, incorrect addresses, and overlap with the Labour Force Survey sample.

24.28 Procedures were put in place to ensure that the probability sample chosen for this subgroup was in some sense geographically close to the Jobseeker subgroup and the Population reference group (see below), but not overlapping these subgroups, nor overlapping the Labour Force Survey or any other ABS household survey.

POPULATION REFERENCE GROUP

24.29 A random subsample of the dwellings selected for screening in the Jobseeker sample was selected in the Population reference group dwelling sample. From each dwelling in the Population reference group sample, a randomly selected in-scope person was selected in the Population reference group, if such a person existed (some dwellings selected in the Population reference group dwelling sample did not contain any persons in the population of interest).

24.30 It is worth noting that, using this sampling methodology, it was possible for a person to be selected both in the Jobseeker subgroup and the Population reference group.

PANEL SIZE AND MAINTENANCE

24.31 The ability to maintain contact with a relatively high proportion of the panel was critical to the usefulness of the survey data. A number of strategies were put in place to help the ABS stay in contact with respondents between interviews. These included: 'change of details' cards for respondents to advise a new address, etc.; a toll-free telephone number for the respondent to call; asking the respondent for contact details of up to three people who were likely to know the respondent's whereabouts; and regular mail contact throughout the survey. However, it was inevitable that some non-response would occur when people were unwilling or unable to cooperate, or when they could not be contacted.

24.32 The attrition rate is the percentage of previous wave respondents who did not respond in the current wave. Attrition between waves caused a permanent drop in the sample size as the survey did not replace non-respondents. Although the weighting procedure for each wave partly corrected for attrition in the sample, there are some small differences in estimates between publications for each wave. Analysis of the attrition shows that higher than average sample loss occurred for males, young people, and people who were renting accommodation. Table 24.1 shows the size and composition of the panel at waves 1, 2 and 3, and the overall attrition rate.

24.1 Composition and Size of the Panel (Persons)

Subgroup	Wave 1	Wave 2	Wave 3	Attrition rate (Wave 1 - Wave 3) (%).
Jobseekers(a)	5,488	4,779	4,261	22.3
Labour Market Program participants	1,019	888	775	23.9
Population reference group	2,311	2,120	1,983	14.2

(a) Includes some Jobseekers who were also part of the Population reference group.

ESTIMATION METHODS

24.33 Calibration estimation techniques were used. Estimation was undertaken separately for the three components of the panel. Longitudinal weights were derived at each wave, benchmarking back to the population size/composition at the time of panel establishment. The use of longitudinal weights had the effect of always producing population estimates that related to the initial point of recruitment.

24.34 Labour Force Survey estimates (employed, unemployed and not in the labour force), were used to supplement independent demographic benchmarks (State/Territory of usual residence, part of State of usual residence, age and sex).

24.35 Aside from these 'standard' weights, it was also necessary to provide separate DSS, DEETYA and combined DSS/DEETYA weights. Although these weights produced similar estimates to the standard weights, their use was limited to analysis that used data from administrative sources. This is because these weights apply to a smaller sample; for example, the combined DEETYA and DSS weight should only be used in analysis that involves both DEETYA and DSS data.

RELIABILITY OF THE ESTIMATES

24.36 Estimates from the survey were subject to both sampling and non-sampling error (see Chapter 17 for more detail). The relative standard errors of survey estimates were published in each survey publication.

DATA COMPARABILITY OVER TIME

24.37 This was a one-off survey.

FURTHER INFORMATION

24.38 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email labour.statistics@abs.gov.au.

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Chapter 25. Methods Used in ABS Business Surveys

CHAPTER 25 : Methods Used in ABS Business Surveys

INTRODUCTION

25.1 This chapter provides an overview of the survey methodology used in ABS labour-related business surveys. It should be used in conjunction with Chapter 17 which provides a broad overview of ABS survey methodology, and Chapters 26-33 which provide more detail on aspects of survey design relevant to each specific labour-related business survey.

SCOPE AND COVERAGE

25.2 The scope of ABS labour-related surveys varies across collections. Most ABS labour-related business surveys draw upon the ABS Business Register (ABSB) which is sourced from the Australian Taxation Office's Australian Business Register (ABR). The scope of surveys which use the business register is restricted by the scope and coverage of the register itself (as outlined in the next section). Surveys with broader or different scope are required to either supplement the business register, or use a sample that has been composed independently of the register by using relevant alternative data sources.

25.3 The following groups are generally excluded from labour-related business surveys:

- Employing businesses in the agriculture, forestry and fishing industry (ANZSIC Division A) in line with the International Labour Organisation (Resolution from the Twelfth International Conference of Labour Statisticians 1973), given that "hired labour constitutes only a minor part of total labour input" in this industry. It would be disproportionately costly to survey a sufficient number of these businesses to obtain a sample of employees to adequately represent this industry.
- Private households employing staff (ANZSIC06 subdivision 96). Not all private households employing staff are required to register with the Australian Taxation Office (ATO), as a result of this there is incomplete coverage on the business register and thus these units are excluded.
- Foreign government representation in Australia (ANZSIC Class 7552). Practical collection difficulties and the low numbers of Australian employees involved have resulted in the exclusion of this industry group from the labour-related business surveys.
- Superannuation funds that provide retirement benefits (ANZSIC Class 6330).
- Members of Australian permanent defence forces.

ABS BUSINESS REGISTER

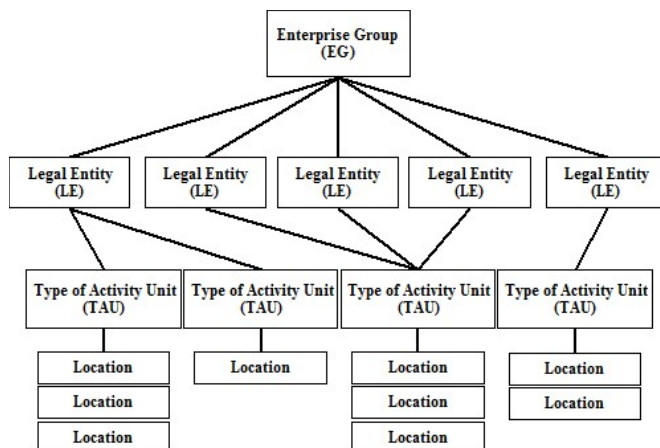
25.4 The ABSBR is a list of businesses and organisations operating in Australia and is based on the ABR. Organisations are included on the ABR when they register for an Australian Business Number (ABN). The ABSBR is used to create frames for the various business surveys run by the ABS and consists of two populations; the profiled population, and the non-profiled population. Organisations which are considered sufficiently complex and significant, are included in the profiled population. They are structured according to the ABS Economic Units Model (ABSEUM) using information provided by the organisations. Organisations in the non-profiled population have less complex structures and are based largely on ABR information.

STATISTICAL UNITS

25.5 Statistical units are used to represent one member of the population being surveyed. Statistical units on the ABSBR are based on the ABS Economics Units Model (ABSEUM). The ABSEUM has four statistical unit levels that are commonly applied in collections, these are Enterprise Group, the Legal Entities that belong to that group, the Type of Activity Units that these legal entities carry out and the location where these economic activities take place.

- **Enterprise Group (EG):** Covers all the operations within Australia's economic territory of legal entities under common control.
- **Legal Entity (LE):** Covers all the operations in Australia of an entity which possesses some or all of the rights and obligations of individual persons or corporations, or which behaves as such in respect of those matters of concern for economic statistics. Examples of legal entities include companies, partnerships, trusts, sole (business) proprietorships, government departments and statutory authorities. In most cases the LE is equivalent to a single ABR registration.
- **Type of Activity Unit (TAU):** Comprises one or more Legal Entities, sub-entities or branches of a Legal entity that can report productive and employment activities. TAUs are created if accounts sufficient to approximate Industry Value Added (IVA) are available at the Australian and New Zealand Standard Industrial Classification (ANZSIC) subdivision level.
- **Location (L):** A single, unbroken physical area from which an organisation is engaged in productive activity on a relatively permanent basis, or at which the organisation is undertaking capital expenditure with the intention of commencing productive activity on a relatively permanent basis at some time in the future.

25.1 ABS Economic Units Model



SAMPLE DESIGN AND SELECTION

25.6 Business surveys undertaken by the ABS fall under two categories: probability sample surveys (information is collected from a random sample of units on the frame) and censuses (information is collected from all units on the frame). With the exception of the Industrial Disputes collection, all labour-related business surveys are probability sample surveys which construct their frame from the ABSBR. The Industrial Disputes collection aims to be a census of all stoppages, and businesses involved in these stoppages are identified through media monitoring and observation of disputes from multiple sources (see Chapter 26 for more details).

25.7 When a sample is selected for an ABS business surveys, a survey frame must first be drawn the ABSBR. From that point, the survey frame is then divided (stratified) into groups known as strata with similar characteristics. The stratification variables typically used in the labour-related business surveys include: state, industry and employment size. The sector (public/private) stratification variable may also be used in some collections. After this, a small number of strata containing large or highly variable units are completely enumerated (CEd). For each of the remaining strata, a simple random sample of units is selected. Some strata with a small population are also CEd.

25.8 The Survey of Employee Earnings and Hours uses an additional step in its sample selection that involves asking businesses to select a random sample of employees from their payrolls using instructions provided by the ABS (see Chapter 30 for more details).

25.9 There are various constraints placed on sample selection. For most labour-related business surveys, sample selection is constrained by ensuring that a portion of the sample that is not CEd is rotated, and that small businesses will be in the sample for no more than 12 successive quarters. Some surveys are further constrained by ensuring that there is either minimal or maximal overlap with other surveys.

25.10 Sample sizes vary across ABS labour-related business surveys. In determining the required sample size for each survey, factors such as required accuracy level, expected level of non-response and total cost are taken into consideration.

COLLECTION METHODS

25.11 Most ABS labour-related business surveys use an electronic collection methodology using internet based survey forms (eForms). Data from some surveys are collected through the mail-out/mail-back or the telephone interview collection methodology.

25.12 In the event of non-response, intensive follow-up procedures that involve reminder letters and telephone contact are undertaken. 'Priority' intensive follow-up is used for a number of surveys; this involves targeting the following types of non-responding units:

- Units that contribute significantly to estimates;
- Newly selected units (e.g. in ongoing surveys); and

- Units that did not respond in the previous survey cycle.

ESTIMATION

25.13 The estimation procedure is the application of weights to individual survey records so that the whole target population is represented (see Chapter 17 for more information). For ABS business surveys, the values of these weights are determined by one or more of the following factors:

- Probability weighting: the probability of selection for each survey unit.
- Ratio estimation: adjustments to agree with population benchmarks to correct for imbalances in the characteristics of the selected sampled units.
- New business provisions: adjustments to account for deficiencies with the survey frame such as missing units.
- Adjustment for non-response: to correct for further imbalances in the characteristics of responding sample units (if not otherwise treated through imputation, as described in 25.17).

25.14 Number-raised estimation and ratio estimation are the two main techniques used in surveys constructing their frame from the ABSBR. The labour-related business surveys use stratum-by-stratum ratio estimation in strata where the population benchmark is known, and sampling efficiencies achievable are greater than with number-raised estimation. For strata where benchmark information is not available, number-raised estimation is used. See Chapter 17 for more information.

25.15 New business provisions are used in the estimation process to allow for births of businesses that have occurred up to the end of the survey reference period, but are not reflected on the survey frame. The calculation of the contribution of a new business is based on the average contribution of estimates of like units already on the frame. The annual Survey of Employment and Earnings (Public Sector) does not allow for new business provisions as data is collected from public sector units only. The Industrial Disputes collection is a census collection, and does not use weighting.

EDITING AND NON-RESPONSE ADJUSTMENT

25.16 Editing is used in ABS business surveys to correct a number of non-sampling errors such as misunderstanding of questions or instructions, mis-coding, non-availability of data, incorrect transcription, non-response and non-contact. Editing and further investigation is performed on estimates in which anomalies have been detected. Significance editing is used by some labour-related business surveys which reduces the overall editing load for the survey, while maximising the effectiveness of editing on survey estimates. Significance editing involves assessing each survey value that requires editing against how greatly the survey estimate will be affected by using the unedited value. Only those values which will significantly affect the survey estimate are then edited.

25.17 Adjustments for non-response are made in the estimation process for all business surveys. There are two categories of non-response for ABS business surveys: partial non-response and complete non-response. The extent to which values are imputed depends upon the amount and the quality of data already provided.

25.18 Imputed values can be derived for business surveys from three sources. The first source is data provided by the particular unit to be imputed for, which may be in the form of data previously provided or current data with partial response. The second source is similar to the first, and involves the use of auxiliary information known about the unit such as tax data from the frame. The third source is data provided by other units believed to have similar responses to the missing data. For complete non-responses and refusals in completely enumerated strata, all data items for the unit are imputed, preferably from previously provided data. Alternatively, where no useful information exists to use in imputation, the weights may be adjusted to account for non-response, as described in 25.12.

25.19 Two main methods for the treatment of outliers are used in ABS business surveys: Surprise Outlying and Winsorisation. For more information see Chapter 17.

FOR FURTHER INFORMATION

25.20 For further details contact the Labour Market Statistics Section in Canberra, on (02) 6252 7206 or email labour.statistics@abs.gov.au

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Chapter 26. Industrial Disputes Collection

CHAPTER 26. INDUSTRIAL DISPUTES COLLECTION

INTRODUCTION

26.1 The ABS has been collecting information about industrial disputes since 1913. The current industrial disputes collection produces quarterly estimates of the number of disputes (where ten or more working days are lost), employees involved, and working days lost. The data are used to support the analysis and monitoring of industrial disputation in Australia.

SURVEY OUTPUT

26.2 Estimates from the industrial disputes collection are currently released quarterly in Industrial Disputes, Australia (cat. no. 6321.0.55.001) and editions of these industrial dispute statistics are available back to March quarter 2004. As well as presenting key figures and key points, between March 2004 and Sep 2006 the publication included summary tables (in addition to time series spreadsheets). From December 2006 the summary tables are no longer presented. Releases between October 1970 and December 2003 were monthly (cat. no. 6321.0).

26.3 Historical data are available via past releases of Labour Statistics, Australia (cat. no. 6101.0). More information on the types of historical ABS data that are available relating to industrial relations issues is available from the Directory of Industrial Relations Statistics, July 1996 (cat. no. 1134.0).

26.4 A number of series are produced from the industrial disputes collection. For disputes which occurred during the period, these include:

- number of industrial disputes
- number of employees involved
- number of working days lost
- number of working days lost per 1000 employees

26.5 Disputes which ended during the period are further classified according to the:

- cause of dispute
- working days lost per employee involved
- reason work resumed

26.6 Estimates are cross classified by state or territory and industry.

SCOPE

26.7 This collection includes all establishments that had industrial disputes which involved stoppages of work of ten (working) days or more within the reference month. Ten working days is equivalent to the amount of ordinary time worked by ten people in one day, or by 40 workers attending a 2 hour stop work meeting (assuming they worked an 8 hour day). For example, 3,000 workers on strike for 2 hours would be counted as 750 working days lost (assuming they normally work an 8 hour day). Disputes which involve the equivalent of less than 10 working days lost are excluded.

26.8 Measures of industrial disputes are based on concepts and definitions outlined in international guidelines adopted by the 1993 International Conference of Labour Statisticians. Refer to Chapter 13 for more information.

26.9 The following types of industrial disputes are within the scope of the Industrial Disputes collection:

- unauthorised stopwork meetings
- general strikes
- sympathetic strikes (strikes in support of a group of workers already on strike)
- political or protest strikes
- rotating or revolving strikes (strikes which occur when workers at different locations take turns to stop work)
- unofficial strikes
- work stoppages initiated by employers (lockouts).

26.10 This concept of an industrial dispute is broader than the concept of industrial action within the Fair Work Act. For example, if an industrial dispute is based on concern of the employee about an imminent risk to his or her health or safety, this is considered an action of ceasing unsafe work under the Work Health and Safety Act, as opposed to industrial action.

26.11 Excluded from the scope of the collection are other types of industrial action, such as work-to-rules, go-slows, and bans (e.g. overtime bans). Also excluded are effects of disputes on locations other than where the stoppages occurred, such as stand-downs because of lack of materials, disruption of transport services and power cuts.

26.12 In addition, if all of the employees involved in an industrial dispute resign, that dispute is deemed to have ended and it is excluded from the scope of the collection from the date of the employment termination.

COLLECTION METHODOLOGY

26.13 A list of organisations whose employees were involved in industrial disputes is compiled monthly. Statistics on industrial disputes are based on all disputes identified which occurred during the period. Disputes are identified through a range of sources, including newspaper and internet reports, listings obtained from industrial relations commissions, contact with government, businesses, employer organisations and trade unions. Although every attempt is made to identify all disputes that occurred in a period, some small disputes may not be identified through the sources available.

26.14 Once all disputes for a month are identified, additional information on the nature and extent of each dispute is obtained through a mail-out/mail-back collection, usually to employers, on the nature and extent of the dispute. Telephone follow-up and some written reminders of outstanding returns are undertaken after the due date.

ESTIMATION METHODS

26.15 Estimates are compiled according to the concepts and definitions outlined in Chapter 13. As the collection is a complete enumeration, no weighting is required.

26.16 Generally there is no imputation for non-response. However some data, e.g. working days lost in a particular strike, may be imputed. Due to the imputation procedures and the limitations on identification of disputes, the statistics should not be regarded as an exact measure of the extent of industrial dispute.

26.17 When there is a return to work between stoppages over the same issue, and the return to work is for less than two complete months, the stoppages are counted as a single dispute. When the return to work is for two or more months, the dispute is considered to have ended at the time of the return to work. Should a subsequent stoppage occur, it is counted as a new dispute. Due to this rule, data relating to disputes which ended in the quarter cannot be finalised until two months have elapsed without further industrial action. Consequently the publication of data for disputes which ended during the quarter is lagged by one quarter.

26.18 Revisions may be made to quarterly data as a result of disputes being identified after release of data for that quarter or as a result of correcting errors in previously reported data.

26.19 The basis for the calculation of working days lost per thousand employees was changed in the January 1995 publication to use

estimates of employees taken from the ABS Labour Force Survey only. Estimates have been recalculated on this basis for each 12 month period back to December 1990 and are available on request. For the January 1987 to December 1994 periods, estimates of employees were taken predominantly from the ABS Survey of Employment and Earnings.

RELIABILITY OF ESTIMATES

26.20 Estimates from the industrial disputes collection are subject to non-sampling error (see Chapter 17 for more information).

DATA COMPARABILITY OVER TIME

26.21 In order to provide a high degree of consistency and comparability over time, changes to collection methods, concepts, data item definitions and frequency are made as infrequently as possible. Significant changes have included:

1913

Industrial Disputes collection commenced. Quarterly and annual statistics published.

1950

Cause of dispute and Method of settlement classifications revised.

Ceased publishing the results of strikes and lockouts. These results had been defined as: in favour of the workpeople; in favour of the employer; compromise; and indefinite.

1952

Ceased publishing details of the number of establishments involved by State/Territory and industry.

1960

Number of disputes, number of employees involved and number of working days lost classified for the first time according to the size (in terms of the number of employees involved or the number of working days lost) of the dispute.

1967

Working days lost per thousand employees first published.

1968

Australian Standard Industrial Classification (ASIC) introduced; revised in 1973, 1978 and 1983.

1970

Introduction of monthly statistics (in addition to the quarterly and annual statistics).

Cause of dispute classification revised.

1979

Disputes and the number of employees involved categorised as either new (commenced during the reporting period) or continuing (continued from the previous reporting period, or the gap from the previous stoppage was less than 2 complete months).

1982

Ceased publishing quarterly statistics.

Estimates of loss of wages discontinued.

1992

From September 1988 a single dispute affecting more than one industry and/or state is counted once in each affected industry and state but only once in the industry or Australia total. Previously, disputes affecting more than one industry and/or state were counted as separate disputes at the industry and state level and in the industry and Australia totals.

1995

Labour Force Survey estimates used as the basis for the calculation of working days lost per thousand employees. Previously, estimates from the Survey of Employment and Earnings were used, sometimes augmented by Labour Force Survey estimates. Industry classified according to the *Australian and New Zealand Standard Industrial Classification (ANZSIC), 1993* (cat no. 1292.0), replacing the Australian Standard Industrial Classification (ASIC). All data released electronically classified using ANZSIC from 1984.

2004

Data released on a quarterly basis, no longer monthly.

Cause of dispute classification revised; Method of settlement classification revised and renamed 'Reason work resumed'; and Duration of dispute data item renamed 'Working days lost per employee involved'.

2009

From the March quarter industry statistics based on Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 edition. Data on this basis available for periods from March quarter 2008 onwards.

Data on the old ANZSIC 1993 basis are available up to the December quarter 2008.

FURTHER INFORMATION

26.22 Details of definitions used in the industrial disputes collection are included in Chapter 13. For further information contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

CHAPTER 27. JOB VACANCIES SURVEY

INTRODUCTION

27.1 The Job Vacancies Survey (JVS) was first conducted in 1974 and has been conducted on a quarterly basis since 1979, with the exception of a suspension for five quarters between August 2008 and August 2009. The survey produces estimates of the number of job vacancies in Australia which are used as a leading indicator of employment growth, in monitoring of the Australian labour market and economy, and for formulating economic policy.

SURVEY OUTPUT

27.2 Estimates are published quarterly in Job Vacancies, Australia (cat. no. 6354.0).

27.3 The population of interest is civilian employee job vacancies, available for immediate filling on the survey reference date, excluding vacancies for jobs based outside Australia. Data compiled from the job vacancies survey are cross-classified by:

- state and territory;
- sector (private/public); and
- industry.

27.4 Data published for the job vacancies series by sector are available on an original, seasonally adjusted, and trend basis. Industry and state data are only published on an original basis. As a result of JVS being suspended in 2008 and 2009, there is a gap in all series: original, seasonally adjusted and trend, for five quarters between August 2008 and August 2009 inclusive.

27.5 Estimates are compiled according to the concepts and definitions outlined in Chapter 4 (Employment measures and classifications) and Chapter 11 (Job vacancies).

SCOPE

27.6 The scope of the survey is restricted to employing businesses. In addition, the standard scope exclusions for ABS labour-related business surveys (outlined in Chapter 25) apply to this survey.

SURVEY METHODOLOGY

27.7 Details of the total number of job vacancies available for immediate filling on the survey reference date are obtained on a quarterly basis from selected businesses. Data is collected using Computer Assisted Telephone Interviewing (CATI), whereby an interviewer enters the data into a computer during a telephone interview.

27.8 The survey reference date for job vacancies is the third Friday in the middle month of the quarter.

27.9 Follow-up procedures are in place to obtain information from respondents who are unable to provide data at the time of the initial interview. A minimum response rate for the survey of 95% across states/territories and industry divisions is usually achieved each quarter.

SAMPLE DESIGN

27.10 A probability sample of statistical units (employing businesses) is drawn from the ABS Business Register using the process outlined in Chapter 25. Variables used to stratify the survey frame are:

- state/territory;
- industry - industry stratification is based on ANZSIC division; and stratification is performed on a grouped industry basis; and
- employment size - the ranges used vary between states/territories and industries.

27.11 Statistical units with benchmark employment greater than a set cutoff (this cutoff will vary for different states/territories) are completely enumerated. Strata with a very small number of statistical units may also be completely enumerated, but such strata may become sampled strata if the number of units increases sufficiently.

27.12 In addition to constraints outlined in Chapter 25, sample selection is constrained by ensuring that there is minimum overlap with other labour-related business surveys.

SAMPLE SIZE AND ALLOCATION

27.13 Approximately 5,000 statistical units are selected in the sample to yield a live sample of approximately 4,800 units.

27.14 The sample is allocated optimally across the strata using a technique designed to minimise the variance of job vacancies estimates at both the national and state/territory level.

SAMPLE ROTATION

27.15 The sample is updated each quarter to reflect changes in the ABS Business Register. Approximately 8% of the sample for the non-completely enumerated strata is replaced each quarter. The JVS population is updated quarterly to take account of:

- new businesses;
- businesses who have ceased employing;
- changes in employment levels;

- changes in industry; and
- other general business changes.

27.16 Sample rotation is implemented for the majority of strata, but is not implemented where the population of a stratum is so small that units rotating out of the sample would be rotated back in after only a short interval.

ESTIMATION

27.17 Number raised estimation is used in all strata.

27.18 For non-responding units in the sampled strata, the Live Respondent Mean method of imputation is used.

27.19 For non-responding units in the completely enumerated (CE) strata, an imputed growth rate is applied to the most recent reported data for the unit, provided that data have been reported in the previous quarter. Growth rates are estimated for each industry division based on data provided by CE units for the most recent quarter provided. Where data for non-responding CE units have not been reported in the previous quarter, ratio imputation is used. The ratio of job vacancies to benchmark employment is calculated at industry division level for responding units from the current quarter. This ratio is then applied to the benchmark employment for the non-responding unit to arrive at the imputed value for job vacancies.

27.20 Survey outliers are treated using the 'surprise outlier' technique.

27.21 Survey estimates include an adjustment called Business Provisions to allow for births and deaths of businesses that have occurred up to the end of the survey reference period but which are not reflected on the survey frame.

27.22 For further information on estimation methods used in ABS Business Surveys, refer to Chapter 25.

RELIABILITY OF THE ESTIMATES

27.23 Estimates from the survey are subject to both sampling and non-sampling error. The standard errors of survey estimates are published in Job Vacancies, Australia (cat. no. 6354.0).

27.24 The 'jack-knife' approach is used to calculate estimates of variance for this survey. For further information on the jack-knife technique for calculating variance, or on sampling and non-sampling error, refer to Chapter 17.

DATA COMPARABILITY OVER TIME

27.25 The JVS was suspended following the May 2008 survey and was reinstated for the November 2009 survey. As a result of JVS being suspended, there is a gap in all series: original, seasonally adjusted and trend, for five quarters between August 2008 and August 2009 inclusive. The ABS cannot produce reliable estimates by collecting this missing data retrospectively, and has not been able to fill the gap using other data sources. For further information, see the Information Paper: Reinstatement of Job Vacancies Survey (cat. no. 6354.0.55.001).

27.26 In order to provide a high degree of consistency and comparability over time, changes to survey methods, concepts, data item definitions, and frequency of collection are made as infrequently as possible. Significant changes have included:

1974

Annual Job Vacancies Survey via mail-out commenced (largely to investigate practicability of a JVS).

1977

Introduction of a smaller scale quarterly telephone-based survey.
Sample based on lists of private and public employers.

1978

Annual and quarterly surveys discontinued.

1979

Quarterly survey reintroduced.
Treatment of Australian Public Service vacancies changed to exclude "vacancies" only available to public service employees.

1980

First collection of job vacancies registered with the Commonwealth Employment Service (CES) (continued on annual basis).

1982

Collection of vacancies classified by sex discontinued.

1985

Job vacancies data published by sector for the first time.

1988

ABS publication of job vacancies registered with the CES discontinued. This data was available via special data service in 1988.

1989

Seasonally adjusted series produced for the first time (November).
Collection of job vacancies registered with CES discontinued.
Job Vacancies, Australia (cat. no. 6231.0) and Overtime, Australia (cat. no. 6330.0) merged into Job Vacancies and Overtime, Australia publication (cat. no. 6354.0).

1993

Trend estimates published for the first time.

1994

Survey redesigned on an ANZSIC (1993) industry basis. The historical Industry series data was backcast on an ANZSIC 1993 basis. Sample rotation increased from approximately 5% to approximately 8% in rotating strata.

1998

Treatment of Australian Public Service vacancies changed (from being excluded to being included) after vacancies were made available to all Australian citizens.

1999

Introduction of Live Respondent Mean imputation for the sampled sector, and the Business Provisions adjustment for the private sector.

Overtime component discontinued.

Significant improvement in procedures, particularly coverage of vacancies within statistical units.

2002

Changes to the ABS Business Register and the ABS statistical units model arising from New Tax System. Changes did not affect the continuity of the key statistical series.

2003

Collection of number of employees discontinued.

Publication of job vacancy rate discontinued.

2006

Concurrent seasonal adjustment method introduced, replacing the forward factor adjustment method previously used.

2008

Survey suspended for five quarters from August 2008 to August 2009 inclusive.

2009

Survey reinstated for the November 2009 reference period, with a new sample based on ANZSIC 2006.

Improvements to survey frame meant that sample was reduced from 5,200 to 5,000 units with no reduction in survey accuracy.

Survey redesigned on ANZSIC 2006 basis from November 2009, but historical ANZSIC 1993 series up to May 2008 not backcast.

2010

Estimates from reinstated survey first published after the February 2010 reference period.

Seasonally adjusted and trend estimates for November 2009 onwards reintroduced from the August 2010 issue.

FURTHER INFORMATION

27.27 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 28. Survey of Major Labour Costs

INTRODUCTION

28.1 The Survey of Major Labour Costs (MLC) has been conducted on an irregular basis since 1985–86 and was most recently conducted in respect of 2010–11. The survey produces statistics on the main costs incurred by businesses as a consequence of employing labour. Data from the survey are used by a wide range of users for labour market analysis. In particular, they are used by governments for employment, prices and income policy development, for monitoring changes in the cost of labour, and for wage determination purposes, and contribute to the Australian National Accounts.

SURVEY OUTPUT

28.2 Estimates are published in Labour Costs, Australia (cat. no. 6348.0). More detailed estimates are available on request.

28.3 The population of interest is civilian employee jobs based in Australia, for which payments in relation to certain labour costs were made during the survey reference period (the financial year ending 30 June). The reference period for fringe benefits tax is for the 12 months ending 31 March. A number of key items are compiled from the survey based on various components of employer labour costs:

- employee earnings;
- superannuation;
- payroll tax;
- workers' compensation; and
- fringe benefits tax.

28.4 Costs are measured on a cash accounting basis, net of any reimbursements, subsidies or rebates.

28.5 Data can be classified by state or territory, industry and employer size by institutional sector and, for public sector units, level of government. Data are available as either total costs or costs per employee.

28.6 Data from the survey are available on an original basis only.

28.7 Data collected in the survey are compiled according to concepts and definitions outlined in Chapter 12 (Employee Remuneration). All labour costs reflect actual payments made in the survey reference period. As such they do not reflect costs incurred in the reference period for which payments are made in a later period, but they include payments made in the survey reference period for costs incurred in a prior period.

28.8 Earnings estimates from the survey are broader than, and are not directly comparable with, earnings estimates from the Survey of Average Weekly Earnings (AWE). For more details on the earnings definition in MLC, see Chapter 12.

28.9 A number of other labour costs are not covered by this survey. These include training costs, costs associated with employee welfare services, and recruitment costs. With the exception of training costs, these items are not considered to make a significant contribution to total labour costs. Training costs were collected in the Training Expenditure and Practices Survey, conducted for the financial year 2001–02, and in the earlier Training Expenditure Survey conducted for September quarters of 1989, 1990, 1993 and 1996. Costs covered in these former surveys are specifically for structured training provided by employers. For further information see Employer Training Expenditure and Practices, Australia (cat. no. 6362.0).

SCOPE

28.10 The scope of the survey is restricted to employing organisations in Australia. The standard scope exclusions for ABS labour-related business surveys (outlined in Chapter 25) apply to this survey.

SURVEY METHODOLOGY

28.11 Detailed information is obtained about labour costs from selected employers predominantly using a mail-out/mail-back collection methodology, with some businesses/organisations providing their information electronically.

28.12 Respondents who do not mail back their completed questionnaire within a reasonable period of time after the survey reference date are followed up by mail and then telephoned if necessary. The response rate for the 2010–11 survey was 89.5%.

SAMPLE DESIGN

28.13 A sample of employing businesses is drawn from the ABS Business Register using the process outlined in Chapter 25. Employing units are stratified by:

- state or territory;
- sector - the public and private sectors are stratified separately;
- industry - industry stratification is based on ANZSIC division; and
- employment size - the ranges used vary between states and territories, sectors and industries.

28.14 Strata on the survey frame that are completely enumerated include those containing selection units with benchmark employment greater than a set cut-off (this cut-off will vary for different states/territories) and strata with a very small number of selection units in the population.

28.15 In addition to constraints outlined in Chapter 25, sample selection is constrained by ensuring there is minimal overlap with other labour-related business surveys.

SAMPLE SIZE AND ALLOCATION

28.16 For the 2010–11 survey, approximately 7,000 employer units were selected to ensure adequate industry and state/territory representation. Of these, approximately 5000 units were in the private sector and 2000 were in the public sector.

SAMPLE RE-SELECTION

28.17 The ABS re-selects the sample for the Survey of Major Labour Costs each time it is conducted. At the same time the overall design of the sample is examined to ensure that it remains efficient and cost-effective.

ESTIMATION

28.18 Number-raised estimation is used to generate population estimates from survey responses. For more information on number-raised estimation, refer to Chapter 17.

28.19 Aggregate ratio imputation is applied to all non-responding units that are not identified as being defunct. The unit is imputed by applying the aggregate ratio of each item to benchmark from respondent units of a similar type (e.g. state, industry, size) as relevant to each item.

28.20 Partial clerical imputation is carried out for units that can only provide part data. The missing item(s) is imputed using the relationship between that item and a relevant provided item as per responding units of similar type. Where relevant and available, employment and earnings data obtained from the Survey of Employment and Earnings or AWE are used to assist clerical imputation.

28.21 Adjustments are made to survey estimates to account for births and deaths of businesses that have occurred up to the end of the survey reference period but which are not reflected on the survey frame.

28.22 For further information on estimation methods used in ABS Business Surveys, refer to Chapter 25.

RELIABILITY OF THE ESTIMATES

28.23 Estimates from the survey are subject to both sampling and non-sampling error. The relative standard errors of survey estimates are available in the publication.

28.24 The bootstrap approach is used to calculate estimates of variance for this survey. For further information on variance estimation techniques, or on sampling and non-sampling error, refer to Chapter 17.

DATA COMPARABILITY OVER TIME

28.25 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, and frequency of collection, are made as infrequently as possible. However care should be taken in using data from this survey as a time series. The survey is designed to give an accurate 'snapshot' of data rather than an ongoing series of observations over time.

1985–86

Annual survey commenced for this reference year.

1986–87

Estimates published in 6349.0 for this reference year.

1991–92

Last year for which survey was conducted on an annual basis.

1993–94

Survey output reclassified on an ANZSIC industry basis. Collection methodology for superannuation coverage and collection of fringe benefits/fringe benefits tax commenced.

1996–97

Introduction of Live Respondent Mean imputation for the sampled sector. Change in reporting arrangements for superannuation by Commonwealth general government organisations. Introduction of Aggregate Ratio imputation for all units.

2002–03

Estimates published in 6348.0.55.001 for this reference year. Employer superannuation costs excluded superannuation contributions made under an employee's salary sacrifice arrangement for the first time. Earnings estimates included, for the first time, the value of salary sacrificed. The derivation of earnings included the ungrossed value of fringe benefits, whereas the grossed up value of fringe benefits was used in 1996–97.

2010–11

Estimates published in 6348.0. Output classified on ANSZIC 2006 industry basis.

FURTHER INFORMATION

28.26 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 29. Survey of Average Weekly Earnings

INTRODUCTION

29.1 The Survey of Average Weekly Earnings (AWE) is a survey of business units which has been conducted since 1981. Prior to August 1981 the AWE series was based principally on information from payroll tax returns. The survey is currently conducted biannually, and was conducted on a quarterly basis until May 2012.

29.2 The purpose of the survey is to measure the level of average gross weekly earnings associated with employees in Australia. Estimates of average weekly earnings, and changes in average weekly earnings, are produced each cycle. Estimates are used in commercial contracts and more broadly by the private sector for economic and labour market analysis and in Commonwealth, State and Territory legislation, for adjusting a variety of government payments, for supporting minimum wage claims, monitoring wage equity, and as an indicator of change in underlying wage rates for economic or taxation policy analysis.

29.3 While the survey provides the headline series for levels of earnings, the Wage Price Index (WPI) is a more relevant indicator for changes in the rates of pay for many purposes, as it is unaffected by changes in the composition of the labour force or changes in the characteristics of employees. For further information on the WPI, please refer to the Explanatory Notes of Wage Price Index, Australia (cat. no. 6345.0) and Wage Price Index: Concepts, Sources and Methods (cat. no. 6351.0.55.001).

SURVEY OUTPUT

29.4 Data are collected and published biannually (relating to the May and November reference periods) in Average Weekly Earnings, Australia (cat. no. 6302.0), released approximately three months after the reference period. Prior to May 2012 the series was released quarterly. More detailed data are available on request. Up until the November reference period 2000, preliminary results were released three weeks earlier in Average Weekly Earnings, Australia, Preliminary (cat. no. 6301.0).

29.5 The population of interest is civilian employees, who received pay for the survey reference period, excluding employees based outside Australia. Three main series are published:

- Average weekly ordinary time earnings (commonly referred to as AWOTE) for full-time adult employees (refer to Chapter 12 for further information on ordinary time, overtime and other components of earnings);

- Average weekly total earnings for full-time adult employees (comprising weekly ordinary time earnings plus weekly overtime earnings); and
- Average weekly total earnings for all employees.

29.6 Earnings in AWE is broadly defined as current and regular payments in cash to employees for work done. Earnings series from the AWE survey have historically excluded amounts salary sacrificed, as these were considered as payments in kind. Under the conceptual framework for measures of employee remuneration, as revised in 2006 in Information Paper: Changes to ABS Measures of Employee Remuneration (cat. no. 6313.0), amounts salary sacrificed are now considered conceptually to be wages and salaries in cash, with information collected on this basis from August 2007. Time series inclusive of salary sacrifice were first published in the May 2011 issue of Average Weekly Earnings, Australia (cat. no. 6302.0), with the time series available back to May 2010. This is an additional (not replacement) series and the ABS continues to publish the AWE series on the former basis (i.e. exclusive of amounts salary sacrificed) to maintain long term comparability of the time series.

29.7 Estimates of the percentage change in average earnings (from both the previous period and from the corresponding period of the previous year) are published for each series. Estimates from the survey are cross-classified by sector, state or territory and by industry at the Australian level, for males, females and persons.

29.8 Estimates are published on the following bases: original; seasonally adjusted; and trend (see Chapter 17 for further explanation of original, seasonally adjusted and trend estimates). Seasonally adjusted and trend estimates are available by Australia and State/Territory for each of the three main series listed above.

29.9 Data collected in the survey are compiled according to concepts and definitions outlined in Chapter 4 (Employment measures and classifications) and Chapter 12 (Employee remuneration).

SCOPE

29.10 The scope of the survey is restricted to employing businesses. The standard scope exclusions for ABS labour related business surveys (outlined in Chapter 25) apply to this survey.

29.11 The following persons are not regarded as employees of the sampled business for the purposes of this survey, and are excluded:

- casual employees who did not receive pay during the reference period;
- employees on leave without pay who did not receive pay during the reference period;
- employees on strike, or stood down, who did not receive pay during the reference period;
- directors who are not paid a salary;
- proprietors/partners of unincorporated businesses;
- self-employed persons such as subcontractors, owner/drivers, consultants (however these persons are separately enumerated as part of their own business if in sample);
- persons paid solely by commission without a retainer;
- employees on parental leave who are receiving payments solely under the Australian Government's Paid Parental Leave Scheme; and
- employees on workers' compensation who are not paid through the payroll.

SURVEY METHODOLOGY

29.12 Details of numbers of employees (full-time adults and other employees), total gross weekly earnings (for full-time adults and other employees), and weekly overtime earnings of full-time adults are obtained on a biannual basis from a sample survey of employer units, using a mail-out/mail-back collection methodology. Data for some Commonwealth and State/Territory Government organisations, and a small number of large private businesses are collected electronically. Businesses which do not mail back their completed questionnaire within a reasonable period of time after the survey reference period are followed up by mail and then phone if necessary. A minimum response rate of 96% is achieved for the survey as a whole and for each state, sector and industry.

29.13 The survey reference period is the week ending the third Friday of each May and November. Due to the wide variety of pay arrangements and systems which exist, most employers are not able to report for this exact period. Therefore employers are requested to report for the last pay period ending on or before this date, and where a pay period is fortnightly or monthly (etc.), the employer is requested to report only one week's proportion.

29.14 Although the historical estimates of earnings from the AWE survey (as well as current information provided on the same basis) should exclude amounts salary sacrificed, in practice there is evidence that some amounts salary sacrificed are sometimes inadvertently included. The ABS works closely with data providers to identify any instances of mis-reporting, and to amend their reporting practices where necessary.

SAMPLE DESIGN

29.15 A probability sample of employing business units is drawn from the ABS Business Register using the process outlined in Chapter 25. Variables used to stratify the survey frame each period are:

- state or territory;
- sector - the public and private sectors are stratified separately;
- industry - within the private sector, industry stratification is based on Australian and New Zealand Standard Industrial Classification (ANZSIC) division; within the public sector ANZSIC divisions are aggregated to form four broad industry groupings; and
- employment size - the ranges used vary between States and Territories, sectors and industries.

29.16 Strata on the survey frame that are completely enumerated include those containing business units with benchmark employment greater than a set cut-off (this cut-off will vary for different states/territories) and strata with a very small number of employing business units. Strata which are completely enumerated because they contain a low number of business units may become sampled strata if the number of

such units in those strata increases sufficiently.

29.17 In addition to constraints outlined in Chapter 25, sample selection is constrained by the need to ensure that there is minimum overlap with other labour related business surveys and with non-labour related business surveys.

29.18 A sample redesign was undertaken in 2009 to incorporate the 2006 version of ANZSIC. Additional details about the implementation of ANZSIC 2006 in AWE can be found in the Information Paper: Changes to Average Weekly Earnings, Australia, Aug 2009 (cat. no. 6302.0.55.002).

SAMPLE SIZE AND ALLOCATION

29.19 Approximately 5,550 business units are selected in the sample to yield a live sample of approximately 5,050 business units.

29.20 The sample is allocated optimally across sampled strata using a technique designed to minimise the variance of average weekly earnings estimates at both the national and state/territory level.

SAMPLE ROTATION

29.21 The sample is updated each period to reflect changes in the ABS Business Register. Approximately 16% of the sample selected from the non-completely enumerated strata is replaced each period. Refer to Chapter 25 for further information.

29.22 Sample rotation is implemented for the majority of sampled strata, but is not implemented where the population of a stratum is so small that units rotating out of the sample would be rotated back in after only a short interval.

ESTIMATION

29.23 Estimates of total weekly earnings and number of employees are computed for various combinations of state or territory, sector and industry. Average weekly earnings measures are the quotient of the respective earnings and employment measures. Ratio estimation is used in all sampled strata, except in small sized strata, in which case number raised estimation is used.

29.24 In both completely enumerated and sampled strata an automatic imputation procedure is used for units not responding, by applying imputed growth rates to the most recently reported employment and earnings data for these units, provided that data have been reported in either of the two previous periods. This is referred to as Beta imputation. Otherwise, the Live Respondent Mean method is used to impute for missing data items.

29.25 Significance editing was introduced in September 1992. This technique means that editing is only performed on those survey values which will significantly impact on the survey estimate if left unaltered.

29.26 Survey outliers are handled by using the 'surprise outlier' technique. For further information on outliers and the 'surprise outlier' technique, refer to Chapter 17.

29.27 For the purposes of ABS statistics, the privatisation of Telstra Corporation (from public sector to private sector) was effective from March quarter 2007. The effect of this change was significant for both the private sector and public sector series. As a result, a trend break was applied to both series between November 2006 and February 2007. For more information please see Information Paper: Future Treatment of Telstra in ABS Statistics, 2007 (cat. no. 8102.0).

TIME SERIES ESTIMATES

29.28 Both seasonally adjusted and trend estimates are produced for key series from this survey.

Seasonal adjustment

29.29 Seasonally adjusted estimates were introduced from September 1983. The change in frequency in 2012 resulted in a new seasonally adjusted series from May 2012. While seasonal factors remain present in AWE and can be calculated on a biannual basis, calculating seasonally adjusted estimates using only two points of measurement each year, rather than the four points available in a quarterly survey, resulted in a change in the level of this series. For more information, refer to Information Paper: Changes to Average Weekly Earnings, Australia, April 2012 (cat. no. 6302.0.55.002).

Trend estimates

29.30 Trend estimates were introduced from August 1993. The change in frequency in 2012 resulted in a new trend series from May 2012. While seasonal factors remain present in AWE and can be calculated on a biannual basis, calculating trend estimates using only two points of measurement each year, rather than the four points available in a quarterly survey, resulted in a change in the level of this series.

RELIABILITY OF THE ESTIMATES

29.31 Estimates from the survey are subject to both sampling and non-sampling error (see Chapter 17 for further information). The relative standard errors of survey estimates are published in Average Weekly Earnings, Australia (cat. no. 6302.0).

29.32 The 'jack-knife' approach is used to calculate estimates of variance for this survey. For further information on the jack-knife technique for estimating variances, or on sampling and non-sampling errors, refer to Chapter 17.

DATA COMPARABILITY OVER TIME

29.33 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and methods of time series analysis, are made as infrequently as possible. Significant changes have included:

1941

Average weekly earnings collection commenced, based principally on information from payroll tax returns.

1981

Survey of businesses conducted quarterly from ABS Business Register.

1983

Interim survey from 1981 replaced; sample increased, selected from upgraded ABS Business Register. Number of employees redefined to those receiving pay in the reference period, rather than those that are on the payroll. Overtime redefined as overtime hours paid for in reference period, rather than overtime hours worked during the reference period. Seasonally adjusted estimates introduced.

1986

Sample reallocated based on sample data previously received.

1992

First data collected electronically from selected survey respondents, including Commonwealth Government departments. AWE survey data (up to 1990) linked with data from previous sources and back-cast to 1941 (cat. no. 6350.0, not available online).

1993

Trend estimates introduced.
Industry estimates by Australian Standard Industrial Classification (ASIC) introduced.

1994

Survey redesigned on an ANZSIC 1993 industry basis.

2001

Publication of preliminary estimates (cat. no. 6301.0) discontinued.

2007

Separate collection of salary sacrificed amounts from August 2007.
Trend break applied to private sector and the public sector estimates between November 2006 and February 2007 due to privatisation of Telstra Corporation.

2009

Survey sample redesigned on an ANZSIC 2006 industry basis.
Sample redesign and improvements to the business survey frame implemented, historical series backcast on the new basis back to August 1994.

2011

The average weekly cash earnings series inclusive of salary sacrifice is introduced, with the time series available back to May 2010. For further information relating to the average weekly cash earnings series, refer to Information Paper: Release of Average Weekly Cash Earnings Series (cat. no. 6302.0.55.003).

2012

Frequency changed from quarterly to biannual (May and November reference periods). For full details on the change in frequency, refer to Information Paper: Changes to Average Weekly Earnings, Australia, April 2012 (cat. no. 6302.0.55.002).

FURTHER INFORMATION

29.34 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 30. Survey of Employee Earnings and Hours**CHAPTER 30. SURVEY OF EMPLOYEE EARNINGS AND HOURS****INTRODUCTION**

30.1 The Survey of Employee Earnings and Hours has been conducted since 1974. It is currently conducted biennially. The survey produces estimates of average weekly earnings and the distribution of weekly earnings and hours paid for, of employees. It also produces estimates of the proportion, and average weekly total earnings, of employees whose pay is set by award only, by collective agreement and by registered or unregistered individual arrangement. Estimates from the survey are used by Commonwealth and State government departments, employer associations, trade unions and academic researchers. They are used in developing and reviewing wages and labour market policies, in the wage negotiation process, and in research into various aspects of the labour market.

SURVEY OUTPUT

30.2 Estimates are published in Employee Earnings and Hours, Australia (cat. no. 6306.0). More detailed estimates are also available on request. Until 2008, preliminary estimates were published in 6305.0 and 6305.0.55.001.

30.3 A number of series are compiled from the survey based on the distribution and composition of earnings and hours paid for, and the methods by which pay is set. These include:

Earnings of employees:

- weekly total cash earnings; weekly ordinary time cash earnings; weekly overtime earnings;
- average weekly total cash earnings; average weekly ordinary time cash earnings; average weekly overtime earnings;
- average hourly total cash earnings; average hourly ordinary time cash earnings; average hourly overtime earnings.

Hours paid for:

- average weekly total hours paid for; average weekly ordinary time hours paid for; average weekly overtime hours paid for.

How employees' pay is set (collected for the first time in 2000):

- the number and cash earnings of employees paid by - award only; collective agreement (registered or unregistered); individual arrangement (registered or unregistered); and owner managers of incorporated enterprises;
- jurisdiction of registered agreements.

30.4 Data can also be cross-classified by: state/territory; sector (public, private); rate of pay; full-time/part-time status; sex; managerial/non-managerial status; type of employee (permanent or fixed-term, or casual); occupation; industry; employer size.

30.5 Data are compiled according to the concepts and definitions outlined in Chapter 4 (Employment measures and classifications), Chapter 12 (Employee remuneration) and Chapter 13 (Industrial relations).

SCOPE

30.6 For the first-stage sample of employing organisations, the standard scope exclusions for ABS labour-related business surveys (outlined in Chapter 25) apply to this survey.

30.7 The scope of the second-stage sample is restricted to civilian employees based in Australia who received payments during the survey reference period. Self-employed persons (such as proprietors/partners of unincorporated businesses), employees who did not receive pay during the reference period (such as persons on unpaid leave), employees based outside Australia, and members of the Australian permanent defence forces are not in scope of the survey.

SURVEY METHODOLOGY

30.8 Detailed information is obtained about a sample of employees from each selected business, using internet based survey forms (eForms). Prior to the May 2012 survey, information was obtained using a mail-out/mail-back collection methodology.

30.9 The survey reference period is the last pay period ending on or before the third Friday in May of the survey year.

30.10 Businesses that do not submit their eForm within a reasonable period of time after the survey reference date are followed up by mail and/or phone.

SAMPLE DESIGN

30.11 The survey uses a two-stage sample selection approach. The first stage involves selecting a probability sample of employer units from the ABS Business Register. The statistical unit for the first stage comprises all activities of an employer in a particular state or territory based on the Australian Business Number (ABN) unit or Type of Activity Unit (TAU). Each statistical unit is classified to an industry which reflects the predominant activity of the business. The collection and reporting units used in the survey usually correspond to the statistical unit. However, where the ABN/TAU unit is unable to provide information required for the survey, it may be split into a number of 'reporting units'. For further information on statistical units used in ABS business surveys refer to Chapter 25.

30.12 In the second stage, businesses selected in the first stage are asked to select a random sample of employees from their payrolls using instructions provided by the ABS.

FIRST STAGE SAMPLE SELECTION

30.13 A probability sample of employing businesses (ABN/TAU units) is drawn from the ABS Business Register using the process outlined in Chapter 25. Variables used to stratify the survey frame at stage one of the sample selection are:

- state or territory;
- sector - the public and private sectors are stratified separately;
- industry - within the private sector, industry stratification is by ANZSIC division; within the public sector ANZSIC divisions are aggregated to form four broad industry groupings; and
- employment size - the ranges used vary between states and territories, sectors and industries.

30.14 Strata on the survey frame that are completely enumerated include those containing selection units with benchmark employment greater than a set cut-off (this cut-off will vary for different states/territories) and strata with a very small number of selection units in the population.

30.15 In addition to constraints outlined in Chapter 25, sample selection is constrained by the need to minimise overlap with the quarterly Survey of Average Weekly Earnings, for businesses with less than 20 employees.

SECOND STAGE SAMPLE SELECTION

30.16 Second-stage sampling units (employees) are selected using systematic sampling within selected first-stage units. A random start and a skip are provided to each selected business for use in selecting the second-stage sample from its payroll(s). Businesses are not required to order their payroll in any particular way when selecting the sample.

SAMPLE SIZE AND ALLOCATION

30.17 For the first-stage sample, approximately 8,400 employer (selection) units are selected to yield a live sample of approximately 7,500 units.

30.18 For the second-stage sample, approximately 55,000 employees contribute to the estimates. The maximum number of employees for any reporting unit is 40.

SAMPLE RESELECTION

30.19 The ABS reselects the sample for the Survey of Employee Earnings and Hours each time it is conducted. At the same time the overall design of the sample is examined to ensure that it remains efficient.

ESTIMATION

30.20 The estimation process occurs in two stages. In the first stage, number raised estimation is used to estimate the number of employees in each business. In the second stage, number raised estimation is again used to estimate the total number of businesses, and therefore employees, in the target population.

30.21 In the sampled strata, the Live Respondent Mean method is used to impute for non-responding businesses. In the completely enumerated strata a ratio imputation model is used.

30.22 Survey outliers are handled using the 'surprise outlier' technique.

30.23 Business Provisions were introduced in the 2000 survey whereby adjustments are made to survey estimates to allow for births and deaths of businesses that have occurred up to the end of the survey reference period but which are not reflected on the survey frame.

30.24 For further information on estimation methods used in ABS Business Surveys, refer to Chapter 25.

TIME SERIES ESTIMATES

30.25 Seasonally adjusted and trend estimates are not produced for this survey.

RELIABILITY OF THE ESTIMATES

30.26 Estimates from the survey are subject to both sampling and non-sampling errors. The standard errors of survey estimates are published in Employee Earnings and Hours, Australia (cat. no. 6306.0).

30.27 The Boot Strap method is used to calculate estimates of variance for this survey. For further information on variance estimation techniques, or on sampling and non-sampling error, refer to Chapter 17.

DATA COMPARABILITY OVER TIME

30.28 Caution should be exercised when comparing data between different years as EEH is not designed as a time series. Also, while changes to the survey are made as infrequently as possible, over time there have been changes to survey methods, survey concepts, data item definitions, and frequency of collection. Key changes have included:

1974

Annual survey commenced; first-stage sample frame comprised lists of employers subject to payroll tax and lists of government departments and hospitals.

1981

Survey frequency changed to biennial.

1983

First-stage sample frame changed to ABS Business Register.

1986

Survey frequency changed to annual.

1993

Payments from workplace and enterprise agreements included in 'Base pay' rather than 'Overaward and overagreement pay'.

1995

Sample redesign on an ANZSIC basis.

1996

Survey frequency changed to biennial.

2000

Questions introduced on how employees' pay is set.

Live Respondent Mean imputation method introduced for the sampled strata and ratio imputation method introduced for the completely enumerated strata.

Business Provision adjustments introduced.

Second-stage sample reduced significantly.

'Overaward and overagreement pay' not collected separately but included in 'Base pay'.

Ceased collection of 'Apprentice/trainee' in status of employee.

2002

How employees' pay is set questions redeveloped.

Changes made to employee type question (replaced 'temporary' with 'fixed-term').

Question introduced on amounts salary sacrificed.

Sample re-designed to minimise overlap with the Survey of Average Weekly Earnings for businesses with less than 20 employees.

Ceased collection of 'Supervisor' in status of employee.

2004

Introduction of new statistical units model.

Changes made to employee type question (combined 'permanent' and 'fixed-term').

Base pay, taxable allowances and payment by measured result no longer collected separately.

Introduction of grouped jack-knife method for calculation of variance estimates.

Working proprietors of incorporated businesses separated from other employees with individual arrangements in method of setting pay classification.

2006

Preliminary publication Employee Earnings and Hours, Australia, Preliminary (cat. no. 6305.0.55.001) was not released for 2006.

Estimates of cash earnings now include amounts salary sacrificed (see cat. no. 6313.0). Estimates of cash earnings from May 2002 and May 2004 surveys reproduced on the new conceptual basis.

Changes made to employee type question ('permanent' and 'fixed-term' separately collected).

Occupation data is now classified according to Australian and New Zealand Standard Classification of Occupations (ANZSCO), First Edition (cat. no. 1220.0). Data classified to Australian Standard Classification of Occupations (ASCO), Second Edition (cat. no. 1220.0) is available on request.

Confidentialised Unit Record File (CURF) (cat. no. 6306.0.55.001) produced.

2008

Industry data classified according to Australian and New Zealand Standard Industrial Classification, 2006 (cat. no. 1292.0).

Data classified to Australian and New Zealand Standard Industrial Classification, 1993 (cat. no. 1292.0) available on request.

Data on methods of setting pay presented on new jurisdictional basis to reflect the new workplace relations environment.

Survey run in August, and the reference period for the survey is August 2008.

Preliminary estimates published in Employee Earnings and Hours, Preliminary, August 2008 (cat. no. 6305.0.55.001).

2010

'Working proprietor of an incorporated business' sub-category of the methods of setting pay data item changed to 'Owner manager of incorporated enterprise'.

Survey run in May, and the reference period for the survey is May 2010.

Confidentialised Unit Record File (CURF) (cat. no. 6306.0.55.001) produced.

Release of additional data cubes.

Information about the proportions of employees covered by national and state jurisdictions for pay setting are no longer published but may be available in the Confidentialised Unit Record File (CURF).

From 2010, additional estimates of numbers of employees published.

2012

Introduction of internet based survey form (eForm) to replace the mail-out/mail-back (paper) questionnaire.

2014

Adult/Junior employee item modified to the new 'Rate of pay' with the additional categories: apprentice or trainee rate; and disability rate.

Actual age of employee information collected. Previously age information was collected only as 'under 18 years', '18 years and under 21 years' and '21 years and over'.

Hours paid for data requested for all employees, including Managerial employees. Previously, hours paid for collected for non-managerial employees only. Estimates of hours paid for and hourly earnings produced for all employees with a link between earnings and hours.

FURTHER INFORMATION

30.29 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email labour.statistics@abs.gov.au.

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Chapter 31. Survey of Employment and Earnings

INTRODUCTION

31.1 The Survey of Employment and Earnings (SEE) is conducted on an annual basis. From September quarter 1983 to June quarter 2007, SEE was conducted on a quarterly basis, with the annual SEE commencing in respect of the 2007–08 reference year.

31.2 The purpose of the survey is to provide estimates of (payroll) employees and cash wages and salaries for the public sector. Data contribute to the Australian National Accounts, for estimates of compensation of employees and of labour productivity. Prior to the March quarter 2002 the survey collected data for both the public and private sector.

SURVEY OUTPUT

31.3 Estimates from the annual survey are published in Employment and Earnings, Public Sector, Australia (cat. no. 6248.0.55.002).

Estimates from the quarterly survey were published in Wage and Salary Earners, Public Sector, Australia (cat. no. 6248.0.55.001).

31.4 The population of interest is public sector civilian employee jobs, for which wage and salary payments were made in the survey reference period, excluding employee jobs based outside of Australia. Two main series are published for the annual SEE:

- public sector payroll employees (employee jobs) as at 30 June; and
- cash wages and salaries for public sector employees.

31.5 Cash wages and salaries comprises regular and irregular payments for work done, including salary sacrificed amounts and paid leave; before tax and other items (e.g. superannuation) are deducted.

31.6 Data are compiled according to the concepts and definitions outlined in Chapter 12 (Employee remuneration). Estimates of cash wages and salaries produced from the annual SEE are based on the Australian conceptual framework for measures of employee remuneration. See Information Paper: Changes to ABS Measures of Employee Remuneration, 2006 (cat. no. 6313.0).

31.7 Data are available for: state and territory; level of government; industry; and public institutional sector.

31.8 Data on earnings for the private sector is collected in the Quarterly Business Indicators Survey and is published in Business Indicators, Australia (cat. no. 5676.0).

SCOPE

31.9 Public sector employing organisations operating in the Agriculture, Forestry and Fishing industries (ANZSIC Division A) are included in the scope of this survey. Otherwise, the standard scope exclusions for ABS labour-related business surveys (outlined in Chapter 25) apply to this survey. Further information is available in the explanatory notes of the publication.

SURVEY METHODOLOGY

31.10 The SEE collects information using a mail-out/mail-back collection methodology from a sample of public sector employer units. Some government departments provide their information to the ABS electronically.

31.11 Employers who do not mail back their completed questionnaire within a reasonable period of time after the reference period are followed up by mail and then phone if necessary.

SAMPLE DESIGN

31.12 A sample of units is selected from the ABS Business Register using the process outlined in Chapter 25. Employing units are stratified by:

- state or territory;
- industry division based on the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006 edition; and
- employment size (the ranges used vary between states and territories, and industries).

31.13 Strata on the survey frame that are completely enumerated include those containing statistical units with benchmark employment greater than a set cut-off (this cut-off will vary for different states/territories and industries) and strata with a very small number of sampling units.

31.14 In addition to constraints outlined in Chapter 25, sample selection is constrained by the need to ensure that there is minimum overlap with other labour-related business surveys.

SAMPLE SIZE AND ALLOCATION

31.15 Approximately 2,000 public sector employer units are selected in the sample to yield a live sample of approximately 1,900 employer units. The sample size decreased from the 2008–09 survey onwards, from around 2,500 to 2,000 employing units. This resulted in increased standard errors, in particular by level of government.

31.16 The sample is allocated optimally across sampled strata using a technique designed to minimise the variance of employment and cash wages and salaries at both the national and state/territory level.

31.17 The sample is updated each year to reflect changes in the ABS Business Register. Approximately one third of the sample from non-completely enumerated strata is replaced each year. Sample rotation is implemented for the majority of sampled strata comprising organisations with 50 employees or less.

ESTIMATION

31.18 Ratio estimation is used in all strata. Ratio imputation is used for non-responding units in both the completely enumerated and sampled strata.

31.19 Survey outliers are dealt with using the 'surprise outlier' technique. For further information on outliers and the surprise outlier technique, refer to Chapter 17.

31.20 For further information on estimation methods used in ABS Business Surveys, refer to Chapter 25.

RELIABILITY OF THE ESTIMATES

31.21 Estimates from the survey are subject to both sampling and non-sampling error. The standard errors of survey estimates are available in the publication.

31.22 The bootstrap replication method is used to calculate estimates of variance for this survey.

DATA COMPARABILITY OVER TIME

31.23 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, and time series analysis methods are made as infrequently as possible. There are also significant series breaks for public sector data over time due to the privatisation of a number of public sector enterprises. Significant privatisation of public sector enterprises began in the 1990s and further significant privatisation occurred in the 2000s. Other significant changes have included:

1961

Survey commenced.

1983

Quarterly survey commenced; based on the existing ABS Business register, replacing civilian employees series based on payroll tax, which was discontinued in April 1980. Public sector completely enumerated.

1988

Size of private sector sample reduced. Sampling introduced for public sector.

1989

Seasonally adjusted estimates introduced.

1991

First data collected electronically.

1993

Trend estimates introduced.

1995

Publication suspended after March quarter, but collection continued.

1996

Male and female employment last collected separately in May 1996.

1997

Publication resumed with March quarter, data published back to June quarter 1995. Extensive revisions made to previously published data due to past deficiencies in the coverage of small businesses on the ABS Business Register. New business provisions adjustment introduced and backcast to beginning of the series. Survey redesigned on ANZSIC 1993 basis, previously published ASIC estimates recompiled on equivalent ANZSIC 1993 basis back to September quarter 1983. Public sector sample size reduced, except for some industries with small populations in Northern Territory and the Australian Capital Territory becoming fully enumerated.

2002

Collection of private sector data discontinued from March quarter 2002. Monthly employment and the full-time/part-time split of employment in the middle month of the quarter discontinued.

2003

Estimates published in 6248.0.55.001, replacing 6248.0.

2007–08

Quarterly Survey of Employment and Earnings ceased after June quarter 2007. Annual Survey of Employment and Earnings commenced for 2007–08. Survey undertaken on an ANZSIC 2006 industry basis, as well as the 1993 edition. Employee remuneration data based on new conceptual framework for measures of employee remuneration. Salary sacrificed earnings collected. Severance, termination and redundancy payments still collected, but not included in the annual cash earnings series. Telstra privatised, and no longer included in estimates.

2008–09

Sample redesign undertaken for 2008–09 survey, based only on the 2006 edition of ANZSIC. Sample size decreased from about 2,500 units (2007–08) to about 2,000 (2008–09), resulting in increases of standard errors.

2011–12

Stand-alone survey not conducted for this period. Estimates produced from the Major Labour Costs Survey (MLC). For further information on MLC refer to Chapter 28.

FURTHER INFORMATION

31.24 For further details contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

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Chapter 32. Wage Price Index

CHAPTER 32. WAGE PRICE INDEX

This page contains a link to the Wage Price Index: Concepts, Sources and Methods (cat. no. 6351.0.55.001) electronic publication. This publication contains the most up to date information about the Wage Price Index.

Chapter 33. Economic Activity Survey

CHAPTER 33. ECONOMIC ACTIVITY SURVEY

INTRODUCTION

33.1 The Economic Activity Survey (EAS) collects information about the operation and financial performance of all businesses in the public trading and private employing sectors of the Australian economy. As part of this suite of information, the survey collects data on employment, wages and labour costs. The core outputs provide key measures of the health and performance of nearly all Australian industries and are used by analysts in both the private and public sectors. They are also a key input into the Australian National Accounts. The questions asked on the survey form are designed to align, where possible, with standard financial accounts such as profit and loss statements.

SURVEY OUTPUT

33.2 Estimates are published annually in Australian Industry (cat. no. 8155.0). Prior to 2001–02, estimates were published annually in Business Operations and Industry Performance, Australia (cat. no. 8140.0).

33.3 The main series compiled include:

- key data by industry division. This includes employment, wages and salaries, sales and service income, total income, total expenses, operating profit before tax, and earnings before interest, tax, depreciation and amortisation;
- labour costs by industry division; and
- industry value added, by industry division.

33.4 Estimates are also cross classified by industry sub-division, business size, and state / territory.

33.5 Employment is defined in the survey as the number of persons working for businesses during the last pay period ending in June of the financial year, includes working proprietors and partners, employees absent on paid or prepaid leave, employees on workers' compensation who continue to be paid through the payroll, and contract workers paid through the payroll. Excluded are persons paid by commission only, non-salaried directors and volunteers. Self-employed persons such as consultants and contractors are excluded from selected businesses to avoid double counting, as they have their own chance of selection on the survey frame. See Chapter 3 for further information on the concept of employment, and on definitions of employment used in ABS household and business surveys.

SCOPE

33.6 The businesses that contribute to the EASurvey are classified:

- by institutional sector, in accordance with the Standard Institutional Sector Classification of Australia (SISCA), which is detailed in Standard Economic Sector Classifications of Australia (SESCA), 2008 (cat. no. 1218.0).
- by industry, in accordance with the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 (Revision 2.0) (cat. no. 1292.0).

33.7 The scope of the EAS includes all employing businesses in the Australian economy except for:

- Financial and Insurance Services (ANZSIC 06 Division K);
- Public Administration (ANZSIC 06 Subdivision 75);
- Defence (ANZSIC 06 Subdivision 76);
- Private Households Employing Staff (ANZSIC 06 Subdivision 96);
- General government (SISCA 3000), except those business classified to Water Supply, Sewerage and Drainage Services (ANZSIC 06 Subdivision 28);

33.8 Government owned or controlled Public Non-Financial Corporations are included.

COLLECTION METHODOLOGY

33.9 Data for the units collected directly are obtained using a mail-out/mail-back collection methodology. This is supplemented by telephone interviewing of selected units. Non-response is kept to a minimum by the use of intensive follow-up. Businesses that do not respond by the due date are initially sent reminder letters and then followed up by telephone.

33.10 The survey reference period is the year ending 30 June. Although financial data estimates relate to the full twelve months, employment estimates relate to the last pay period ending in June of the given year. As a result, estimates of wages and salaries per person employed may be affected by any fluctuations in employment during the reference period.

SAMPLE DESIGN

33.11 In order to minimise the load placed on providers, the strategy for this survey is to use, as much as possible, information sourced from the ATO, thus reducing the size sample for direct collection. The frame (from which the direct collection sample is selected) is stratified using information held on the ABS Business Register. Businesses eligible for selection in the direct collect sample are then selected from the frame using stratified random sampling techniques.

33.12 Businesses are selected to participate in the survey (the direct collect sample) only if they meet two criteria: their turnover exceeds a

threshold level and the business is identified as being an employing business (based on ATO information) during the reference period. Turnover thresholds are set for each ANZSIC class so that the contribution of surveyed businesses accounts for 97.5% of total industry class turnover as determined by ATO Business Activity Statement (BAS) data. Businesses which meet neither of these criteria are referred to as 'micro non-employing businesses'. These businesses are not eligible for selection in the sample. For these units, data is modelled based on BAS data sourced from the ATO, then added to the directly collected estimates to produce industry statistics.

ESTIMATION

33.13 Generalised regression estimation has been used since the 2006–07 survey. This estimation method enables maximum use of observed linear relationships between data directly collected from businesses in the survey and auxiliary information. When the auxiliary information is strongly correlated with data items collected in a survey, the generalised regression estimation methodology will improve the accuracy of the estimates. The auxiliary variables used in this survey were turnover and wages sourced from the BAS data.

33.14 Where possible, historical data are used for imputing non-responding units. Where units have not provided data previously or had not been selected in previous surveys data is imputed based on BAS data sourced from the ATO or Live Respondent Mean is used. Clerical imputation is used where only partial responses are received.

33.15 Survey outliers are treated using the 'surprise outlier' or 'winsorised outlier' technique.

33.16 The estimation procedure includes new business provisions, which adjust estimates to allow for the time lag between businesses commencing operation and their inclusion on the ABS Business Register.

33.17 For further information on estimation methods used in ABS Business Surveys, refer to Chapter 25.

RELIABILITY OF THE ESTIMATES

33.18 Estimates from the survey are subject to both sampling and non-sampling error. The relative standard errors of survey estimates are published in Australian Industry (cat. no. 8155.0).

DATA COMPARABILITY OVER TIME

33.19 In order to provide a high degree of consistency and comparability over time, changes to survey methods, survey concepts, data item definitions, frequency of collection, and time series analysis methods are made as infrequently as possible. Significant changes have included:

1989–90

The EAS collection was first conducted as a pilot test, using a sample of about 600 units.

1990–91

The survey was expanded to a full dress rehearsal, with a sample of around 8,000 units. Estimates for 1990–91 were considered for publication, but were held over until 1991–92 estimates were also available. Results published in Business Operations and Industry Performance, Australia (cat. no. 8140.0).

1993–94

Industry classification changed from ASIC to ANZSIC.

1994–95

Expansion of the survey form to collect data for the Input-Output Section of the ABS. The expansion involved modifying some existing questions to provide a finer level of detail, and including additional questions. The purpose of these changes was to assist in the compilation of the National Accounts on an Input-Output basis.

1995–96

Questions about waste management and selected expenses (Input-Output) were expanded into two separate supplementary surveys that accompanied the main EAS survey form. A new, shorter version of the main EAS survey form was also trialled on 400 respondents.

1996–97

The main EAS survey form (the "core form") was produced in a simplified format, with all questions appearing at the front and Include/Excludes, Notes and other explanatory material at the back. New questions were included on the core form, including whether the organisation was a not for profit organisation. An additional question regarding sponsorship was included on the expenses (Input-Output) form. Selected experimental estimates derived by incorporating business income tax (BIT) data were published for the first time.

1997–98

Tourism Satellite Accounts forms were collected.

1998–99

Selected experimental detailed industry estimates derived by incorporating business income tax data were published for the first time.

2000–01

Data of Donations by business to community projects, and Sponsorship, were collected from a subsample of EAS businesses, as a supplementary survey. Data relating to ANZSIC division A (Agriculture, Forestry and Fishing) are not available from either ABS sources or ABARE.

2001–02

With the introduction of The New Tax System (TNTS), 2001–02 saw a major change to the EAS collection adopting new statistical infrastructure and a new statistical units model based on the ABN for businesses with simple structures and the TAU for businesses with complex structures. This resulted in a new data series commencing from the 2001-02 reference period. To help bridge the series, key data were presented for 2000-01 on the bases of the old and the new infrastructure. Results published in Australian Industry (cat. no. 8155.0).

2002–03

Additional sample and questions included for the (biennial) Information and Communications Technology Industry Surveys. ANZSIC

Division A restored to outputs.

2003–04

Additional sample and questions included to enable compilation of the Tourism Satellite Accounts. Collection of most assets and liabilities data discontinued indefinitely.

2004–05

Additional sample and questions included for the (biennial) Information and Communications Technology Industry Surveys. Employment data included in outputs as experimental estimates.

2005–06

Additional sample included to enable estimates produced on the 1993 edition of ANZSIC to be bridged to those for 2006.

2006–07

ANZSIC06 was introduced together with generalised regression as the new estimation method for sampled units, and supplemented with ATO business activity statement (BAS) for micro non-employing businesses.

2007–08

Additional questions included to provide more detailed breakdown of sales and service income, purchases and inventories. Data for the private sector of Division O (Public Administration and Safety) now included.

2008–09

Sample size increased by about one-third (from approximately 15,000 to 20,000) to improve reliability of estimates.

2011–12

Sample size increased by 200 units to improve reliability of Division B (Mining) estimates.

FURTHER INFORMATION

33.20 For further details contact the Labour Market Statistics Section, on Canberra (02) 6252 7206 or email labour.statistics@abs.gov.au.

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Explanatory Notes

Abbreviations

ABBREVIATIONS

ABN	Australian Business Number
ABR	Australian Business Register
ABS	Australian Bureau of Statistics
ABSDL	Australian Bureau of Statistics Data Laboratory
ABSCQ	Australian Bureau of Statistics Classification of Qualifications
ASNA	Australian System of National Accounts
ANZ	Australia and New Zealand Banking Group
ANZSCO	Australian and New Zealand Standard Classification of Occupations
ANZSIC	Australian and New Zealand Standard Industrial Classification
ARA	Any Responsible Adult
ASCCSS	Australian Standard Classification of Countries for Social Statistics
ASCED	Australian Standard Classification of Education
ASCO	Australian Standard Classification of Occupations
ASGC	Australian Standard Geographic Classification
ASGS	Australian Statistical Geography Standard
ASIC	Australian Standard Industrial Classification
ATO	Australian Taxation Office
ATSI	Aboriginal and Torres Strait Islander
AWCE	Average Weekly Cash Earnings
AWE	Survey of Average Weekly Earnings
AWOTE	Average Weekly Ordinary Time Earnings
CAI	Computer Assisted Interviewing
CCLI	Classification and Classified List of Industries
CCLO	Classification and Classified List of Occupations
CD	Census Collection District
CES	Commonwealth Employment Service
CI	confidence interval
CoE	Compensation of Employees
CURF	Confidentialised Unit Record File
DEETYA	Department of Employment, Education, Training and Youth Affairs
DEEWR	Department of Education, Employment and Workplace Relations
DSS	Department of Social Security
EAS	Economic Activity Survey
EEBTUM	Employee Earnings, Benefits and Trade Union Membership
EEH	Survey of Employee Earnings and Hours
ERP	Estimated Resident Population
FOES	Forms of Employment
GDP	Gross Domestic Product

GST	Goods and Services Tax
ICLS	International Conference of Labour Statisticians
ICSE	International Classification of Status in Employment
ICF	Indigenous Communities Framework
ILO	International Labour Organisation
IRC	Industrial Relations Commission
ISIC	International Standard Industrial Classification of All Economic Activities
JVS	Job Vacancies Survey
LFS	Labour Force Survey
LGA	Local Government Area
LRM	Live Respondent Mean Imputation
MFP	Multi-factor productivity
MLC	Survey of Major Labour Costs
MPHS	Multi Purpose Household Survey
NDS	National Data Set for Compensation-based Statistics
OMIE	Owner Managers of Incorporated Enterprises
OMUE	Owner Managers of Unincorporated Enterprises
PAYE	Pay As You Earn
PAYGW	Pay As You Go Withholding
PNILF	Persons Not in the Labour Force
PSU	Primary Sampling Unit
QBIS	Quarterly Business Indicators Surveys
RADL	Remote Access Data Laboratory
RSE	relative standard error
SACC	Standard Australian Classification of Countries
SA1	Statistical Area Level 1
SA2	Statistical Area Level 2
SACC	Standard Australian Classification of Countries
SE	standard error
SEAS	Survey of Employment Arrangements and Superannuation
SEARS	Survey of Employment Arrangements, Retirement and Superannuation
SEE	Survey of Employment and Earnings
SEIFA	Socio-Economic Indexes for Areas
SESCA	Standard Economic Sector Classifications of Australia
SLA	Statistical Local Area
SNA	System of National Accounts
SSS	Special Social Survey
STRP	Severance, termination and redundancy payments
TAU	Type of Activity Unit
TNTS	The New Tas System
WPI	Wage Price Index
WTA	Working Time Arrangements

International Guidelines on Dissemination and ABS Practice (Appendix)

INTERNATIONAL GUIDELINES ON DISSEMINATION AND ABS PRACTICE (APPENDIX)

As statistics generally have assumed a more important role in the day to day activities of modern economies and societies, a number of international agencies including the International Monetary Fund and the International Labour Organisation (ILO) have put forward a range of proposals and guidelines for the dissemination of data; the methodology of its collection and compilation, and evaluation as to its accuracy; relevance to the phenomena measured; and the quality of the output.

In particular, the ILO at its 1998 International Conference of Labour Statisticians (ICLS) endorsed a set of 20 guidelines concerning dissemination practices for labour statistics. How these compare with the current ABS release practices is outlined in the following section.

2.1 LABOUR STATISTICS DISSEMINATION - ICLS GUIDELINES AND ABS PRACTICE

ICLS GUIDELINES		ABS PRACTICE
		ACCESS
1	Ready access should be provided to data and metadata and they should be actively disseminated and publicised. Subject to national data protection restrictions, micro-data that protect the confidentiality of respondents should be made available - at least for research purposes.	The ABS public good policy (outlined above) ensures ready access to the data from its statistical collections. Unpublished data are also generally available on request. Metadata are disseminated alongside the data they relate to in explanatory notes, glossaries, commentary, and other material associated with each statistical collection. Micro-data, also referred to as unit record data, are available from a number of statistical collections. The release of unit record data is subject to strict release provisions to protect confidentiality.
2	A variety of statistical products should be derived from each data set, using appropriate dissemination media in each case.	A wide range of products is used to disseminate ABS statistics including publications, information papers, articles and data reports. Information is available in printed and electronic form.
3	The professionalism of statistical agency staff should encompass the skills and techniques needed to design tables and charts, to communicate information effectively to users; also presentational and media skills.	The ABS employs professional staff who are trained in a variety of disciplines, and possess the technical skills necessary to design, collect, process and disseminate information to users.

4	The initial release of the main labour aggregatesMain labour aggregates, as well as more detailed disaggregations, are released into the public domain free of into the public domain should be free of charge; charge. Charging policies and practices for customised data are publicly available. an explanation of any charging policies that are followed by the statistical agency for additional outputs should be publicly available.	
5	The professional staff responsible for labour data should ensure their names and/or workplace telephone numbers are published with all statistical outputs; other forms of direct contact with users such as user groups and 'help lines' should be developed by the statistical agency.	<p>Contact names and details of staff responsible for statistical collections are published with all outputs from those collections.</p> <p>The ABS provides a range of services to address users' general information needs including national statistical service, national information referral service, library, Internet, and consultancy services.</p> <p>The ABS consults regularly with users to obtain feedback on directions for its statistical collections. In the field of labour statistics, an advisory group composed of key users of labour data has been formed as a forum to seek users' views on a range of labour statistics issues.</p>
6	Statistical agencies should regard the provision of data and metadata to international organisations as equivalent in importance to the supply of data to home customers; international organisations should adopt dissemination guidelines themselves.	The ABS makes data freely available to a number of international organisations.

INTEGRITY

7	The terms and conditions under which statistics are produced and released, including labour statistics, should be a matter of public record.	The terms and conditions under which statistics are produced are outlined in the Commonwealth Census and Statistics Act 1905 which describes the statistical information to be collected, the administration of statistical activities, obligations to answer questions, the publication of statistics, the release of other information, secrecy provisions, and the fines and penalties that can be imposed for the failure to comply with requests for information, or for the furnishing of false or misleading statements.
8	Those agencies that have technical responsibility and prepare analytical commentary on the data should have responsibility for releasing data.	The ABS has responsibility for the collection, compilation, analyses and release of data.
9	There should be prior announcement of the date of initial release of labour statistics including, where possible, the exact time. The earlier the advance notice the better, even if dates are issued initially on a provisional basis. When release deadlines are not met, the reason should be made publicly available.	<p>Release dates are set in advance for ABS publications and other standard products.</p> <p>The release dates for main economic indicators are set and published 12 months in advance. The release date for the next publication is advised in each main economic indicator release. Labour-related main economic indicators include:</p> <ul style="list-style-type: none"> • Labour Force Survey; • Wage Price Index; and • Job Vacancies Survey.
10	Data should be released the same day and at precisely the same time of day to all parties. If special privileges are given to journalists, this should be under 'lock-up' conditions.	<p>Other release dates are set and published six months in advance.</p> <p>All ABS products are subject to an embargo before release. The release time on the ABS website for all products is 11.30 a.m. Canberra time. Release of all products is subject to strict security; no unauthorised persons can access products or their contents prior to the nominated release time.</p>
11	If demands for prior access to the data within governments cannot be resisted, the number of persons with advance access should be kept to an absolute minimum and a list of these persons should be maintained; the period of notice they are given should be kept as short as possible.	To avoid inadvertent misinterpretation or misreporting of the headline features of sensitive statistical releases, the Australian Statistician may grant access to statistical products under embargo to authorised persons. Access is facilitated through a secure lockup.
12	Ministerial commentaries and statements made at the time the statistics are released must be clearly distinguished from those of the statisticians.	Ministerial comment is only made after the official release of ABS data, and is clearly distinguishable from ABS analysis.

DATA

13	Where there are significant shortfalls in the coverage of national employment and unemployment totals, users should be made aware of this and reminded every time the data are released. Providing subtotals sufficiently reliable can be produced for the purpose to be served, their availability should be well publicised.	The ABS attempts to provide as many dissections of the data as accuracy will permit. Extensive use is made of Explanatory Notes, caveats and information papers to inform the public of any shortcomings in the data.
14	Similarly, users should be made well aware of the reference period of the data.	The reference period associated with each collection is highlighted in publication titles, commentary and all associated output.
15	If countries have the resources and there is evidence of user demand, the main aggregates should be released at least on a quarterly basis. Publication of information necessary for detailed structural analysis of the labour market should occur at least annually.	<p>Estimates of the labour force are released monthly, while industry and occupation splits are released quarterly.</p> <p>A further range of labour data is produced at quarterly, annual and less frequent intervals.</p>
16	Labour statistics should be released as soon as possible after the data have been assembled and analysed. When the source is a household or establishment survey conducted monthly or quarterly, data for the main aggregates should normally be available within a quarter of the end of the reference period to which they refer.	<p>ABS policy is to release monthly main economic indicators within the month following the end of the reference period; other monthly publications are released within 6 weeks of the reference period.</p> <p>Quarterly main economic indicators should be released within two months of the reference quarter; other quarterly publications should be released within the quarter following the reference quarter.</p> <p>Labour force supplementary surveys should be released within six months of the reference period.</p>

Ideally, annual survey data should be released, at least on a preliminary basis, within a half year Annual publications should be released within one year of the reference period. of the reference period.

For irregular collections the first major release should be within 12 months of the reference period.

Also see point 9 above.

QUALITY

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| 17 | Regularly updated documentation on metadata -Metadata are disseminated along with the data to which they relate, in the explanatory notes, glossaries, the definitions, methodology, sources, sampling error and other quality indicators, the questionnaires, forms, etc., used in preparing the statistics - should be made publicly available, including the degree of alignment with international recommendations. | Major changes to forms, questionnaires or methodology are announced in special information papers. |
| 18 | Where there are two or more sources of labour data, reconciliation or comparisons between them should be published regularly. Statistical frameworks and accounting schemes that support statistical cross-checks should also be developed. | Reconciliations or comparisons and reasons for differences are published from time to time, usually in explanatory notes within publications, or in special information papers. |
| 19 | Users should be given adequate advanced warning of revisions and their implementation should be guided by a code of practice. | Users are given adequate advance warning of major revisions, usually via an information paper prepared and published well in advance of implementation. |
| 20 | The statistical agency should make estimates for missing periods whenever collection or collation of data is interrupted. Similarly, the effects of discontinuities should be estimated. | In cases where there are large discontinuities, the effects of these discontinuities are estimated using the best methodology available. |
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